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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
MITCHELL BROS. COMPANY,
(INCORPORATED.)

VOL. XI.

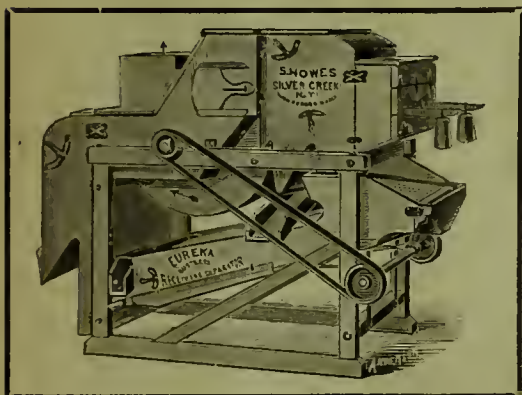
CHICAGO, ILLINOIS, SEPTEMBER 15, 1892.

No. 3.

SUBSCRIPTION PRICE,
ONE DOLLAR PER ANNUM.

THE Eureka Grain-Cleaning Machinery

FOR ELEVATOR USE



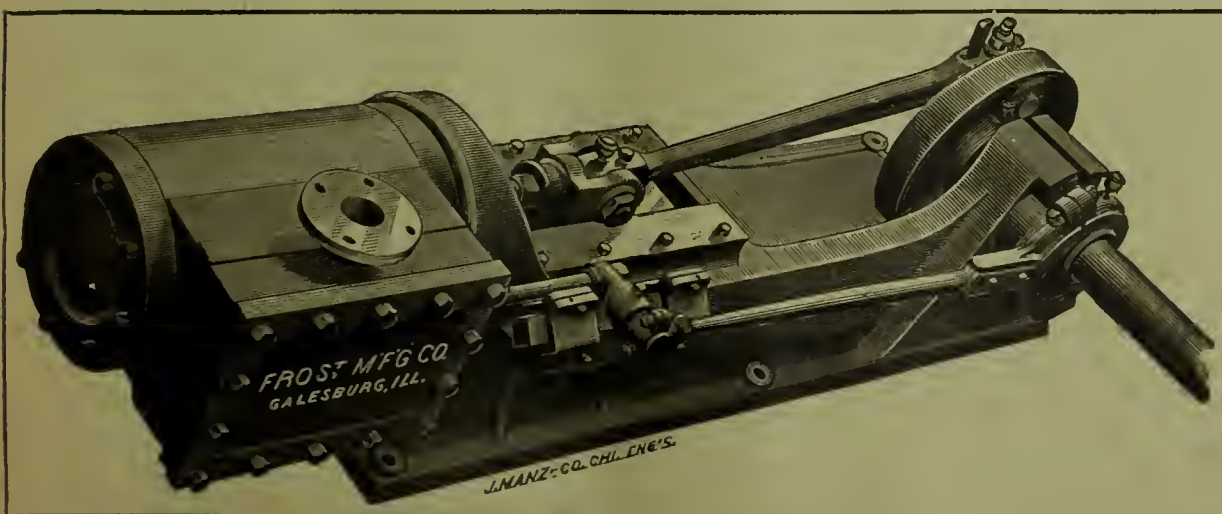
COMPRISES

The Eureka Warehouse and Elevator Separator.
The Eureka Double Receiving Separator.
The Eureka Single Receiving Separator.
The Eureka Aspirating Separator.
The Eureka Corn Sheller, Dustless.

For Circulars, prices, etc., address

S. HOWES, SOLE MANUFACTURER, SILVER CREEK, N. Y.

CONVEYORS	+ + + Elevator Buckets. + + Elevator Boots. + + Elevator Bolts. + + +			BELTING
	THORNBURGH MFG. COMPANY, MILL AND ELEVATOR SUPPLIES 110 & 112 SOUTH JEFFERSON STREET, CHICAGO, ILL. Elevating and Conveying Machinery a Specialty.			
	+ + + PULLEYS. + + + SHAFTHING. + + + HANGERS. + + +			

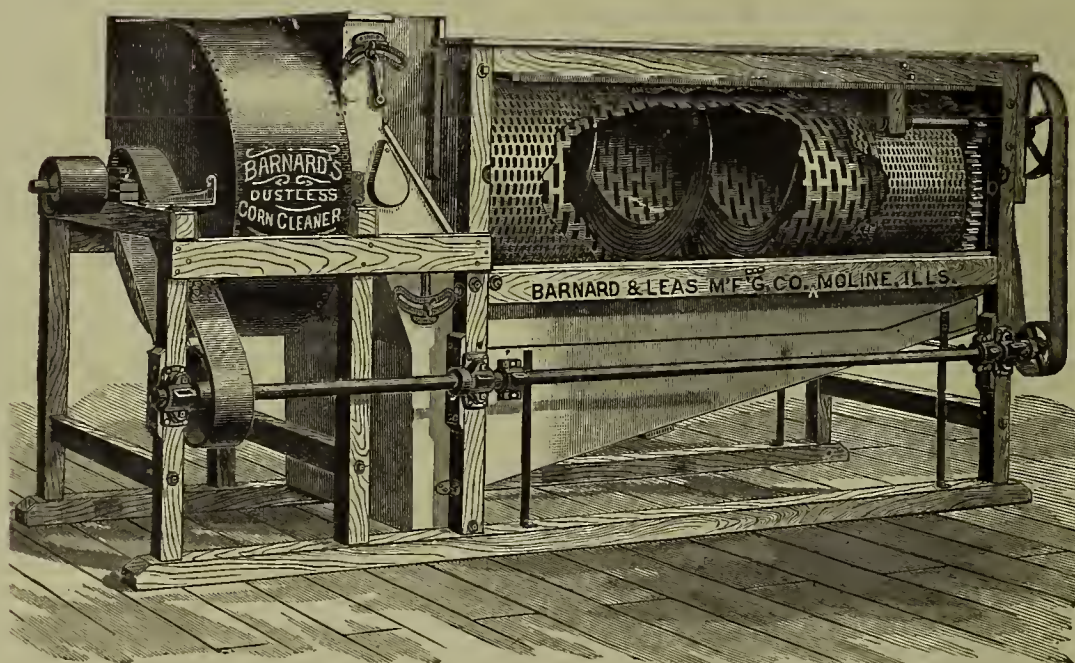
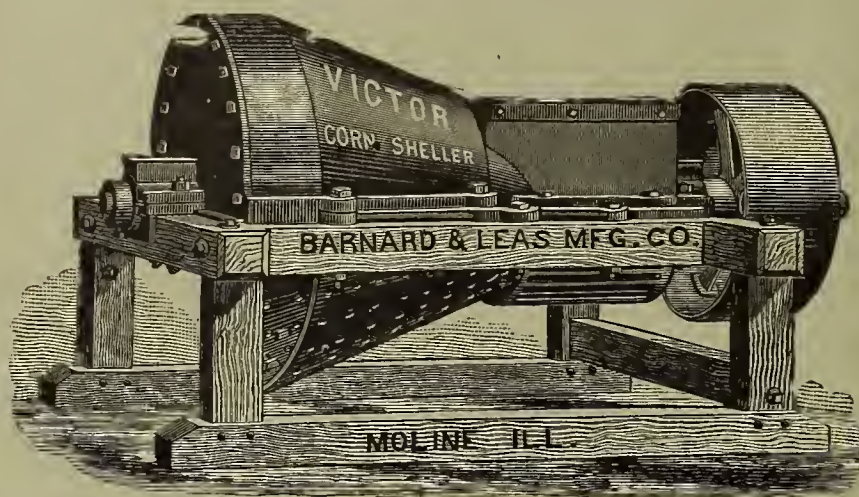


FOR PRICES AND DISCOUNTS
— ON —
Elevator Machinery
AND SUPPLIES
— OF —
EVERY DESCRIPTION,
ADDRESS EITHER STEAM OR HORSE-POWER,
The FROST MFG. CO.,
GALESBURG, ILL.

AMERICAN ELEVATOR AND GRAIN TRADE.

HERE IS THE BEST

Corn Sheller and Cleaner on earth. Be sure and send your orders to Barnard & Leas Mfg. Co., and get the best.



MANUFACTURED ONLY BY

BARNARD & LEAS MFG. CO.,
MOLINE, - - - ILLINOIS.

— AGENTS —

J. F. PAYNE,
Room 3, Chamber of Commerce, INDIANAPOLIS, IND.

F. G. WALLACE,
Produce Exchange, TOLEDO, OHIO.

JOHN SYPHERS, Henderson, Ky.

CHAS. E. MANOR, Stanleyton, Page Co., Va.

CHAS. KEMP, Moroni, San Pete Co., Utah.

WM. R. DELL & SON, 26 Mark Lane, London, E. C., England.

THE WATEROUS ENGINE WORKS CO., Winnipeg, Manitoba.

JOHN ABELL, Toronto, Canada, Sole Manufacturer for the Dominion of Canada.

M. M. SNIDER,
1323 Capitol Avenue, DES MOINES, IOWA.

R. C. STONE, Springfield, Mo.

STUART HARE, Enterprise, Kan.

J. M. ALLEN, Lisbon, North Dakota.

THE EXCELSIOR DUSTLESS MACHINERY

WATKINS & CO., COMMISSION GRAIN,
Chamber of Commerce,

PEORIA, ILL., June 14, 1891.

GENTLEMEN: We have clipped to this date something like 500 carloads of oats with the No. 6 "Excelsior" Combined Clipper and Polisher we bought of you at an expense of only a very few dollars for repairs to replace clipping wallowers. The machine has always been entirely satisfactory to us. We have never had a car of oats go off grade through any fault of the machine. We are buying a great many oats clipped by the "Excelsior" Clipper, and selling to same parties as those from your Clipper, and their oats have frequent claims made back on us.

Yours truly,
WATKINS & CO.

BELLEVUE, IOWA, April 17, 1891.

GENTS:—Since purchasing our No. 5 Excelsior Combined Oat Clipper and Polisher of you in March, 1889, we have clipped and cleaned 150,000 bushels of oats, the loss in clipping averaging 6-10 of a pound per bushel, and we have always got the highest price for No. 2 grade oats, while we make no distinction as to quality in our purchasing, but all going to the same bin. This we consider one of the great advantages of a good Oat Clipper. We have always been well pleased with the machine. Repairs just purchased of you, amounting to \$5.00, is all we have had to pay.

Yours truly,
REILING & CO.

HOLSTEIN, IOWA, April 10, 1891.

E. H. PEASE MFG. CO., Racine, Wis.

GENTLEMEN:—In regard to the No. 6 Excelsior Oat Clipper and Polisher, and Separator, I purchased of you last fall, I wish to say that it is highly satisfactory and surpasses my best expectations. I have polished about 150,000 bushels of barley with it, and it does this work very evenly, and does not break nor hull the grain. I am now running it on oats that test 28 pounds to the bushel, and raise them up to 33 and 34 pounds, with a shrinkage of not more than 3 ounces to the bushel.

I hesitated some before buying, but now that I know what it will do, I would not be without it for many times its value.

SIGNED, F. S. MANSON.

CHICAGO, ILL., Feb. 24, 1891.

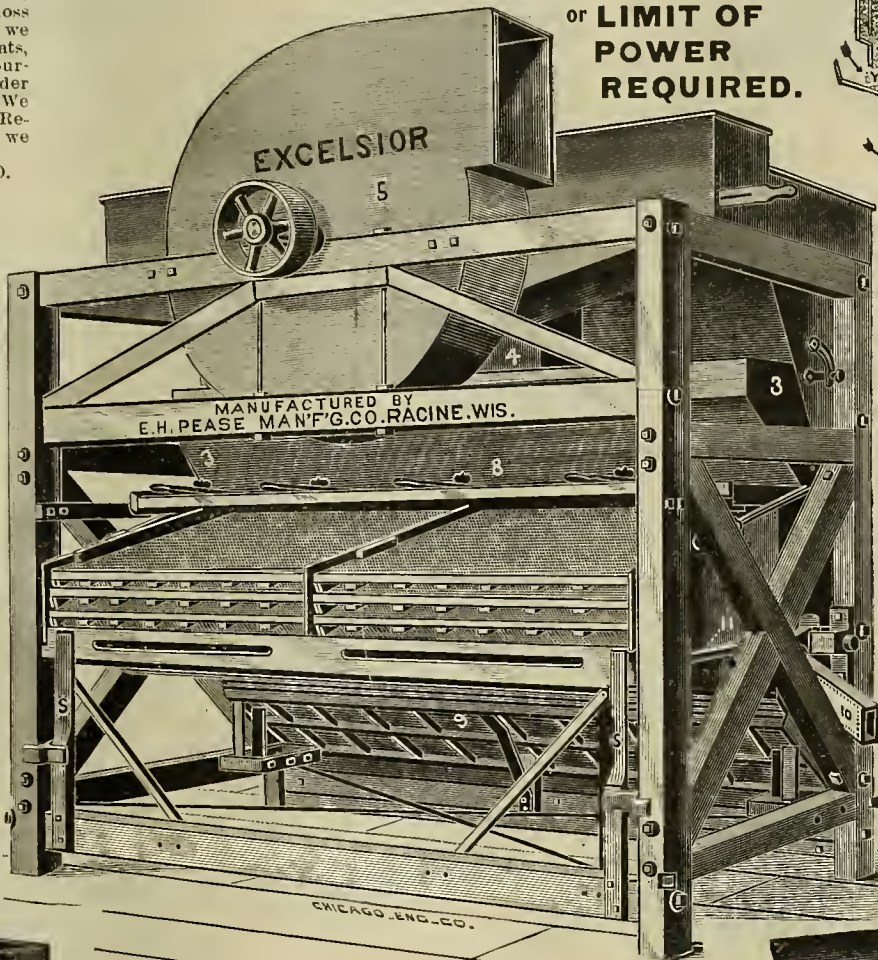
DEAR SIR:

The two No. 8 Excelsior Jr. Oat Clippers we bought of you in June, 1890, are giving splendid satisfaction. We experience no difficulty in raising the weight of oats from 8 to 10 lbs. to the measured bushel. On the 12th inst. we run through the two machines a large lot of very foul No. 3 white oats, testing 27 pounds to the measured bushel, and raised them to a fine, bright quality of No. 2 oats, testing 37 pounds; shrinkage 500 pounds to 1,000 bushels. The shrinkage being largely "hulls," and being separated from the dust, can be utilized in making ground feed.

On the 18th inst. we run 4,500 bushels of oats through in 3 hours, and raised them from No. 3 white, testing 29 lbs., to No. 2, testing 38 lbs.

Yours truly,
COLUMBIA ELEVATOR CO.,
J. E. CAILEY, Sec'y.

HAS NO SUPERIOR IN POINTS OF
CONSTRUCTION,
DURABILITY,
EXCELLENCE OF WORK,
STILLNESS OF RUNNING,
or LIMIT OF
POWER
REQUIRED.



"Excelsior" Dustless Elevator Separator.

FOR ALL KINDS OF
GRAIN OR SEEDS.

MADE IN 4 SIZES.

CAPACITIES, FROM 300 TO 2,000 BUSHELS PER HOUR.

HAS LARGE SIEVE SURFACE, POWERFUL
FAN AND PERFECT VENTILATION.

GRAIN SHOE IS COUNTER-BALANCED BY
COUNTER-BALANCE SPRINGS.

THE SMOOTHEST

—AND—

LIGHTEST RUNNING SEPARATOR
IN THE MARKET.

"ELEVATOR B."

LA CROSSE, WIS., Nov. 6, 1890.

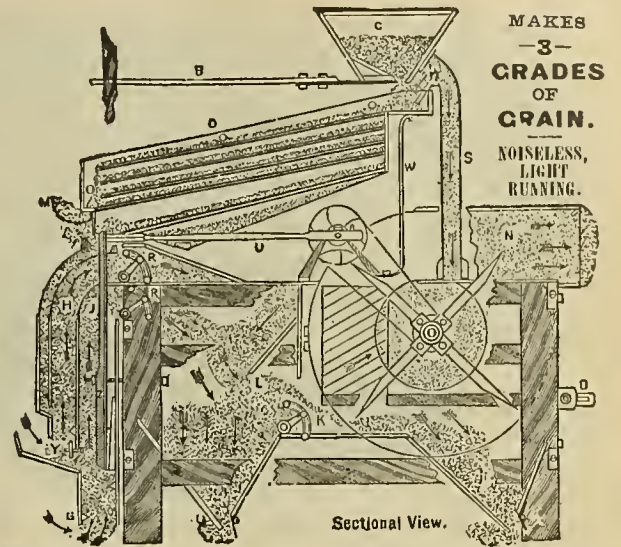
GENTLEMEN:—Have just made a Test Run of Flax over the No. 2 Excelsior Receiver Separator of 775 bushels per hour without crowding. Of course, when flax is very dirty it would require more attention or slower feed. We are very much pleased with the machine on flax and timothy. It adds one-half to the capacity of our flax reels and of our timothy mills.

Yours respectfully,
W. B. CLISBY,
Foreman for W. W. CARGILL & BRO.

SEND FOR
CATALOGUE

AND
PRICES

—TO—



"Excelsior" Dustless Separator and Grader

—FOR—

SEPARATING, CLEANING AND GRADING
WHEAT FOR MILLING.

OR ANY KIND OF GRAIN FOR
MERCHANTABLE PURPOSES.

MADE IN 4 SIZES.

CAPACITIES, 150 TO 800 BUSHELS PER HOUR.

CEDAR RAPIDS, IA., Dec. 19, 1890.

GENTS:—The No. 8 EXCELSIOR OAT CLIPPER, SEPARATOR, GRADER AND POLISHER COMBINED, bought of you in January, 1890, is still doing business at the old stand, and giving as good satisfaction as ever. We are now using it to polish barley and it is giving good satisfaction.

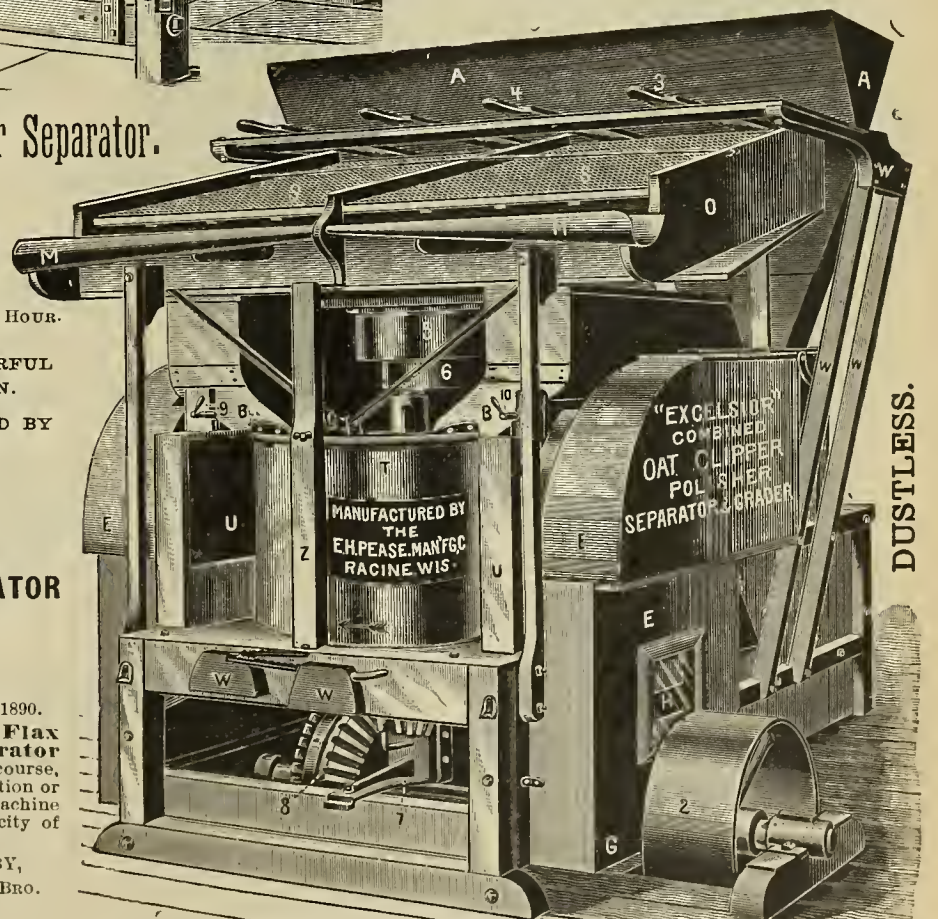
Yours truly,
MINER & MORGAN.



"EXCELSIOR, JR." OAT CLIPPER, POLISHER and SEPARATOR
FOR CLIPPING, POLISHING, SEPARATING AND
CLEANING OATS.

OR MAY BE FURNISHED WITH SIEVING, ETC.,
FOR POLISHING, CLEANING, SEPARATING AND
GRADING WHEAT OR BARLEY.

MADE IN 2 SIZES. CAPACITIES, 250 TO 600 BUSHELS PER HOUR.



"EXCELSIOR" OAT CLIPPER, SEPARATOR AND GRADER COMBINED;

ALSO POLISHER, SEPARATOR AND GRADER COMBINED.

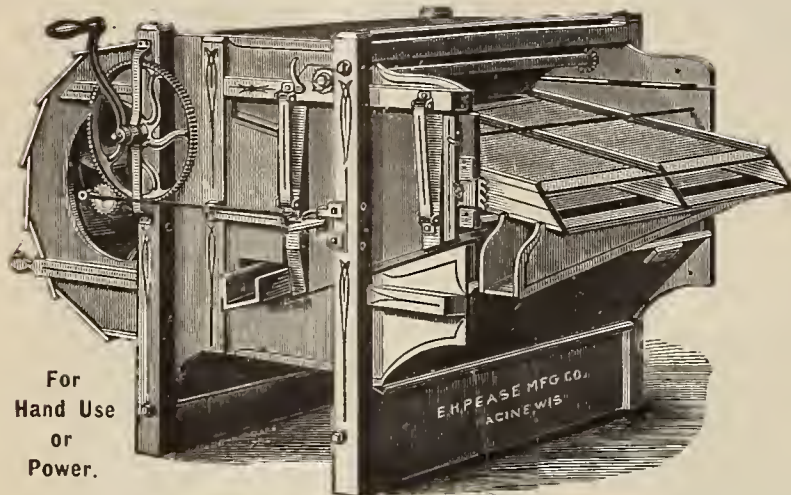
THIS "COMBINED" MACHINE May be fitted to fill any or all the capacities of a GENERAL DUSTLESS ELEVATOR RECEIVING SEPARATOR for all kinds of Grain; OR AS A CLIPPER, CLEANER, POLISHER, SEPARATOR and GRADER OF OATS. OR AS A POLISHER, SEPARATOR, CLEANER and GRADER of Wheat and Barley.

MADE IN 3 SIZES, WITH CAPACITIES FROM 150 TO 750 BUSHELS PER HOUR.

E. H. PEASE MFG. CO., RACINE, WIS., U. S. A.

SEE PAGES 74, 75, 76, 77.

PEASE WAREHOUSE FANNING MILLS.



For
Hand Use
or
Power.

The "Pease" Side Shake Mills.

The Cut shows the "Right," or Crank side. On the opposite side are tight and loose Pulleys. These mills are not only a first class mill for general work but are also specially adapted for all kinds of seed cleaning as is attested by the following unsolicited letter, which we publish by permission:

ST. CHARLES, MINN., April 12, 1890.

E. H. PEASE MFG. CO., Racine, Wis.:

Gentlemen:—We have started the No. 2 Mill which we bought from you a short time ago. We find it to be the best Timothy Cleaner we ever saw. It cleans very fast and does fine work. It is far ahead of the — mill for cleaning timothy. We also use a — mill, but it does not come up to the No. 2 side shake we bought of you. Your No. 2 will clean timothy about three times as fast as the — mill does, and does better work than the — does. Your mill is well built and strong. We would not give our No. 2 "Pease" Side Shake for any two — that we ever saw. Very truly,

J. B. ZECHES & CO.

NOTE—The No. 0 machine is not fitted to run by hand power.

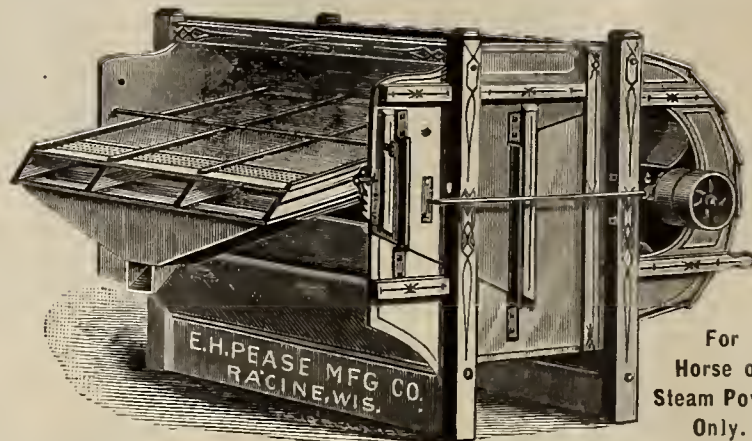
	No. 3.	No. 2.	No. 1.	No. 0.
Extreme Height.....	3 ft. 6 in.	3 ft. 6 in.	3 ft. 6 in.	3 ft. 6 in.
Size over all.....	5 ft 2 in. x 3 ft 4 in.	5 ft. 2 in. x 4 ft.	5 ft 2 in x 4 ft 9 in	5 ft 2 in x 5 ft 9 in
Floor to center of pulley.....	25½ in.	25½ in.	25½ in.	25½ in.
Driving pulley.....	6 in. x 2 in.	6 in. x 2 in.	6 in. x 2 in.	6 in. x 3 in.
Revolutions per minute.....	275	275	275	275
Size of hurdles.....	2 ft. 6 in. x 24 in.	3 ft. 2 in. x 24 in.	4 ft. x 24 in.	5 ft. x 24 in.
Capacity per hour.....	100 to 200 bu.	125 to 250 bu.	175 to 350 bu.	250 to 450 bu.

HAVE
THE
LARGEST
SALES

OF
ANY
MADE
IN
THE

UNITED

STATES



For
Horse or
Steam Power
Only.

The "Pease" End Shake Mills.

Particularly adapted for use in Horse Power Elevators where power is limited and close cleaning and grading desired. It is strong, durable and noiseless.

The shoe is supported by STEEL springs, hung from above and vibrated by flexible shake-rods with ADJUSTABLE ECCENTRICS. The shake is from front to back, instead of from side to side.

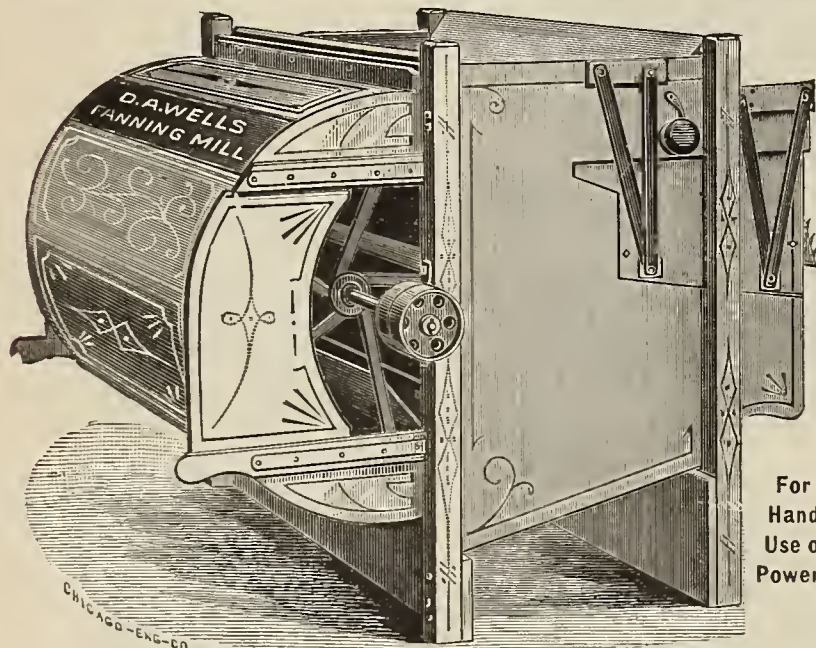
They are fitted with a patent adjustable hopper raiser, not shown in cut, which gives an even flow of grain upon the sieves.

These Mills have MUCH GREATER CAPACITY than any other kind of equal sizes. They are especially adapted for cleaning ALL KINDS OF GRAIN. The side shake Mills are better adapted for cleaning Clover, Timothy, Flax, etc.

NOTE—The pulleys are placed on the RIGHT side of mills or opposite to those showing in this cut, unless otherwise ordered.

	No. 3.	No. 2.	No. 1.	No. 0.	No. 00
Extreme Height.....	3 ft. 6 in.	3 ft. 6 in.	3 ft. 6 in.	3 ft. 6 in.	3 ft. 6 in.
Size over all.....	5 ft. 9 in. x 5 ft. 9 in.	5 ft. 9 in. x 5 ft. 9 in.	5 ft. 9 in. x 5 ft. 9 in.	5 ft. 9 in. x 5 ft. 9 in.	5 ft. 9 in. x 5 ft. 9 in.
Floor to center of pulley.....	3 ft. 3 in.	3 ft. 11 in.	4 ft. 8 in.	5 ft. 8 in.	6 ft. 8 in.
Driving pulleys.....	25½ in.	25½ in.	25½ in.	25½ in.	25½ in.
Revolutions per minute.....	6 in. x 2 in.	6 in. x 2 in.	6 in. x 2 in.	6 in. x 3 in.	6 in. x 3 in.
Size of hurdle.....	450	450	450	450	450
Capacity per hour.....	2 ft. 6 in. x 30 in.	3 ft. 2 in. x 30 in.	4 ft. x 30 in.	5 ft. x 30 in.	6 ft. x 30 in.
	125 to 250 bu	150 to 300 bu	200 to 400 bu	250 to 500 bu	300 to 600 bu

THESE MACHINES CAN BE FURNISHED WITH SPECIAL SIEVING TO HANDLE ANY KIND OF GRAIN OR SEEDS.



For
Hand
Use or
Power.

The "D. A. Wells" Warehouse Fanning Mill.

WARRANTED

To clean CORN or OATS at the rate of 800 to 1,000 bushels per hour with the equal of ONE MAN POWER. SOLD SUBJECT TO TRIAL. SATISFACTION GUARANTEED!

Designed for locations where power is limited and rapid cleaning is more of an object than close grading.

They have a much larger capacity than our "Pease" Warehouse Mills, but having a larger fan, do not require as high a motion and consequently require less power.

These mills are famous as corn and oat cleaner, where plain elevator work is required, and to be done rapidly.

The sieves are so arranged that they may be put in place or taken out independently, thus enabling the operator to quickly arrange any combination that may be required for the various kinds or conditions of grain to be cleaned.

Extreme height.	Size over all.	Floor to center of pulley.	Driving pulleys.	Rev. per minute.	Size of sieves.	Capacity per hour on corn or oats.	Weight.
4 ft. 1 in.	5 ft 6 in x 6 ft.	2 ft. 3 in.	6 in x 2 in	140	57 in. x 26 in.	800 to 1,000 bu.	425 lbs.

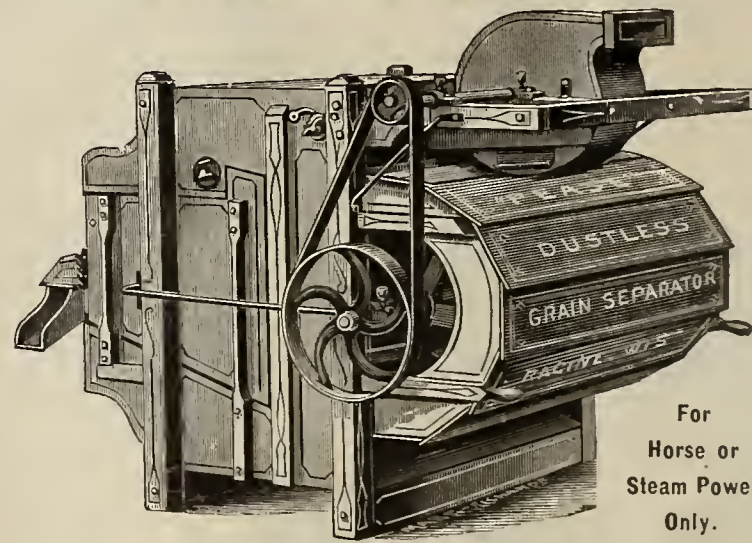
WE
ARE
HEADQUARTERS

FOR
ALL KINDS
OF
MOTIVE POWER
MACHINERY,
FITTINGS,
SUPPLIES AND
REPAIRS

FOR
GRAIN
ELEVATORS,
AND
MILLS.

—O—
SEND FOR
GENERAL
CATALOGUE
AND PRICES
—TO—

The "Pease" Dustless Separators.



For
Horse or
Steam Power
Only.

CHICAGO, ILL., April 8, 1891.

GENTLEMEN:—The "Pease" Dustless Separator I bought of you March 26, 1891, I sold to Wittman & Co., 66 and 68 N. Halsted St. The No. 00 Machine I bought of you January 19, 1891, I sold to F. Grimsell, 80 W. Erie St., and one I bought of you some time ago I sold to Keifer Bros., North Ave. and Halsted St. These and several others of these "Pease" Dustless Separators I have bought of you are being used chiefly for cleaning corn and oats, and any of them will clean as fast as 8x5-inch buckets, placed 12 inches apart and running at the usual speed, can elevate.

All the machines are giving good satisfaction.

Yours, etc.,

R. D. HILDRETH, Millwright,
53 and 55 So. Jefferson St.

SPIRIT LAKE, IOWA, May, 7, 1891.

GENTLEMEN:—Inclosed find draft to pay for the No. 00 "Pease" Dustless Separator just received from you to take the place of the — Separator. Day before yesterday we put the mill in place, and have been running it on some odd jobs, and the Separator works to our entire satisfaction. The Dustless Fan and Conductor works splendidly, carrying out everything I want it to, and I can put the suction on strong enough to take out grain if I desired. I can regulate the machine just as I want to, and am just more than pleased with it. Yours truly,

D. L. RILEY.

	No. 3.	No. 2.	No. 1.	No. 0.	No. 00.
Extreme Height.....	5 ft. 2 in.	5 ft. 2 in.	5 ft. 2 in.	5 ft. 3 in.	5 ft. 7 in.
Size over all.....	5 ft 9 in. x 3 ft 5 in.	5 ft 9 in. x 4 ft 5 in.	5 ft 9 in. x 5 ft 5 in.	5 ft 9 in. x 6 ft 5 in.	5 ft. 9 in. x 9 ft 5 in.
Height to where grain enters.....	4 ft. 3 in.	4 ft. 3 in.	4 ft. 3 in.	4 ft. 3 in.	4 ft. 3 in.
Floor to center of pulley.....	2 ft. 3 in.	2 ft. 3 in.	2 ft. 3 in.	2 ft. 3 in.	2 ft. 3 in.
Driving pulleys.....	6 in. x 3 in.	6 in. x 3 in.	6 in. x 3 in.	6 in. x 4 in.	6 in. x 4 in.
Revolutions per minute.....	450	450	450	450	450
Size of hurdles.....	2 ft. 6 in. x 30 in.	2 in. x 4 ft. x 30 in.	5 ft. x 30 in.	6 ft. x 30 in.	6 ft. x 30 in.
Capacity per hour.....	125 to 250 bu	150 to 300 bu	200 to 400 bu	250 to 400 bu	300 to 600 bu

E. H. PEASE MFG. CO., RACINE, WIS., U. S. A.

SEE PAGES 73, 75, 76 and 77.

THE MOST SUCCESSFUL FLAX CLEANERS IN THE WORLD!

FLAX,
TIMOTHY AND CLOVER
CLEANING.

Dear Sirs:—We are using one of your No. 2 EXCELSIOR Dustless Elevator Separators (see page 317 of this paper) as a "scalper" for Flax, and easily run 750 bushels per hour through it. Much of the flax is thus reduced below six per cent. and run directly to our shipping bins. We also have one of your QUADRUPLE Flax Reeling Machines with which we clean rough flax down to two and one-half per cent. at the rate of 300 bushels per hour. We always overcrowd the reels so as to increase their capacity and thus run some flax into the "tailings" which we reclean at our leisure. Of course we should not waste any flax into the tailings and would reduce the flax to better per cent. if we did not crowd the "Feed" on our reels so hard. We consider the outfit hard to beat. We also use the Separator to scalp timothy and clover, thereby DOUBLING the capacity of our seed cleaners.

Yours truly,
W. B. CLISBY, Foreman,
W. W. CARGILL & BROS.,
Elevator "B"

La Crosse, Wis.,
Aug. 31, 1891.

STRAIGHT OR TAPERED
HAND REELS OF ANY DIMENSIONS
DESIRED, MADE TO ORDER.



MADE
WITH
ONE, TWO or
FOUR

REELS
IN A
CHEST
AND
with or without

"SCALPING-SHOE"

REELS
OF ANY
DESIRED STYLE
OR
DIMENSIONS
MADE TO ORDER.

WRITE FOR
PARTICULARS.

Two feet of capacity length for each lineal foot of machine.

Tapered, Hexagon Reels. Revolving on Horizontal Shafts.

All Sprocket Wheels and Drive Chain run perpendicular and parallel with each other.

The lightest running, best made, most durable reels in the market.

Can "Clothe" them with

{ "BLACK" OR "TINNED" WIRE-CLOTH,
PERFORATED ZINC, OR
PERFORATED SHEET STEEL.

HOW IS THIS?

A FIVE YEARS' RECORD!

MINNEAPOLIS, MINN., Nov. 28, '91.

GENTLEMEN:—The QUADRUPLE FLAX REELING MACHINE you shipped us here for ELEVATOR "K" belonging to E. P. Bacon of Milwaukee has been running in good shape a month, and is giving perfect satisfaction.

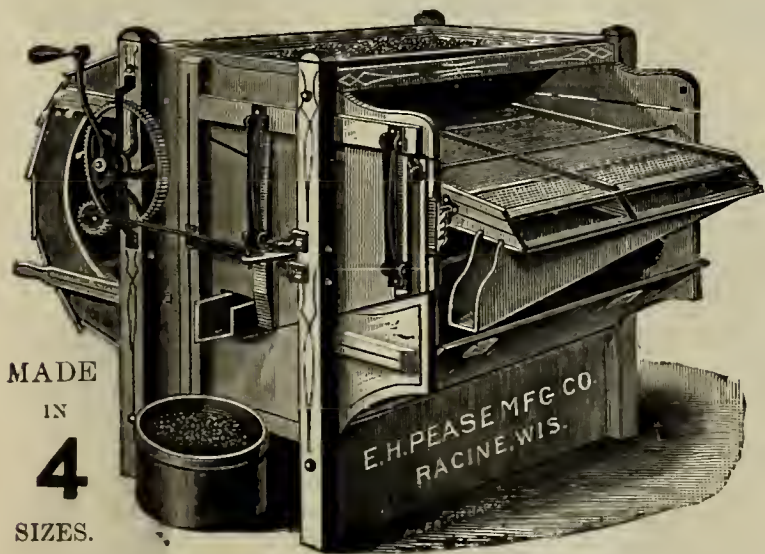
We also have one of your machines of same style and size that has been running in this cleaning house about five years, which we like equally as well.

With either machine, WE CLEAN ROUGH FLAX DOWN TO ONE PER CENT. at the rate of 175 BUSHEL PER HOUR.

Have never seen another as perfect machine for RAPID AND PERFECT FLAX CLEANING. It is a pleasure to recommend your machines, as they are perfect and require little power or attention.

Yours truly,
E. G. TERWILLIGER,
Supt. Elevator "K."

OUR "PEASE" SPECIAL FLAX MILLS
—ARE—
FAMOUS FLAX CLEANERS
FOR SEED FLAX, OR COMMERCIAL CLEANING.
FOR COUNTRY GRAIN HOUSES.



MADE
IN
4
SIZES.

FOR HAND USE OR POWER.

This mill is represented with a Grain Hurdle in the Shoe, to show that although especially adapted to Flax Seed Cleaning, it can also be used for all kinds of Grain, making it a universal mill, calculated for all kinds of work. This mill is built upon the same principle as our Side Shake Warehouse Mills, but with more depth of the shoe, in order to accommodate deeper sieves, and a flax screen extending to the extreme front of the mill, a length of four feet. It consequently has greater capacity than any ordinary mill in existence. No flax hurdles are used, as separate sieves work better on flax seed, and afford opportunities for changing the combinations for different classes of work. This mill is equally well adapted to cleaning, separating and screening Timothy, Clover, and other fine seeds.

LOOK HERE!

THIS IS ONLY A PARTIAL LIST OF

LARGE FLAX HANDLERS

WHO HAVE ADOPTED AND ARE EACH

USING FROM ONE TO SIX OF OUR FLAX REELING MACHINES,

—VIZ:—

ALBERT DICKINSON SEED CO.,
MINNESOTA ELE. CO., (Armour & Co.)
CHAS. COUNSELMAN & CO.,
W. L. LUCE (South Elmhurst Elevator),

CHICAGO.

E. P. BACON & CO., MILWAUKEE.

MINNEAPOLIS:

INTER-STATE GRAIN CO.
E. P. BACON, ELEVATOR "K".
STRONG & MILLER.
EMPIRE ELEVATOR CO.
BAGLEY ELEVATOR "X".

WINONA MILL CO., Mankato, Minn.
NESS & MOEN, Peterson, Minn.
INTER-STATE GRAIN CO., Oelwine, Iowa.
SAMUELSON & CO., Stromsburg, Neb.
J. C. SANBORN & SON, Orionville, Minn.
W. H. STIPP, State Center, Iowa.
GRAY, BABCOCK & SEARS, Ida Grove, Iowa.
S. J. CLAUSEN, Clear Lake, Iowa.
THOS. KOLTIS & CO., Badcliffe, Iowa.
D. C. FAIRBANKS, Dodge Center, Minn.
J. E. KNUDSON, Mason City, Iowa.
CARGILL & BRO., La Crosse, Wis.
STOKES BROS., Watertown, S. Dak.
CLARK BROS. & CO., Manson, Iowa.
BOOR & BENJAMIN, Ashton, Iowa.
BARLOW & LAWRENCE, Thornton, Iowa.
MITCHELL BROS., Manley, Iowa,
AND MANY OTHERS.

E. H. PEASE MFG. CO., RACINE, WIS., U. S. A.

SEE PAGES 73, 74, 76 and 77.

THE MOST SUCCESSFUL

MOTIVE POWER EVER INVENTED

FOR

COUNTRY GRAIN ELEVATORS

HERE YOU HAVE IT
IN A "NUTSHELL".

E. H. Pease Mfg. Co.

DEAR SIR:—We have given The Seven Complete Outfits (7 Morton Powers and 7 outfits of Elevating Machinery), bought of you this season, a six weeks' trial and find them all perfectly satisfactory. I consider the Morton Tread Power superior to any other in use. We have taken in at a single house as high as 3,750 bushels per day and used two 900 lb. horses to do the work, and at the same time loaded out 6 large ear loads. Yours truly,

WINONA MILL CO.,
Per W. F. PARKER,
Auditor and Builder.

WINONA, MINN., Oct. 24, 1891.

Above Company now (4-8-92) have 9 of these Powers.

WE ARE...

SOLE
GENERAL AGENTS

FOR
THESE POWERS

AND
HAVE PLACED STOCKS

FOR

Prompt Shipment

AT

RACINE, WIS.,
MINNEAPOLIS,
COUNCIL BLUFFS,
KANSAS CITY,
MUSKEGON, MICH.

ADDRESS

ALL LETTERS AND ORDERS

TO

E. H. PEASE MFG. CO., Racine, Wis.,

SEE PAGES 73, 74, 75, and 77.

THE MORTON TREAD POWER



DESIGNED EXPRESSLY FOR GRAIN ELEVATORS.

Style No. 3. For 1, 2 and 3 Horses.

Speed of Main Shaft, 90 to 100 per Minute.

For houses where not more than one, two or three horse power is required, these powers are beyond controversy more economical and satisfactory motors for grain elevators than any steam or gas engine or other horse powers in the world.

THEY ARE THE MOST SUCCESSFUL

BECAUSE

THEY ARE WARRANTED to give as steady motion to the grain elevating machinery, or to grain cleaning machinery as any steam or gas engine of same rated horse power.

They are always ready for business at a moment's notice. There is no fire to build; no steam to get up; no engineer or driver required; no dangers from combustible fuels of any kind; no increased insurance rates; no fire risks.

Our Patent Automatic Governor is furnished with every Morton Power sold without extra charge, and can be regulated to run the power slower or faster in a moment's time. Should a belt "fly off" when power is operating at full speed and work, there will be no change of speed and no damage to power or horses.

IT IS THE ONLY POWER

having an adjustable "elevation" (on which the horses walk), which is an important point of superiority, viz: By the mere turning of a crank, the operator can, at will, give more or less "pitch" to the elevation, thereby developing more or less power as work in hand requires, or lower same to a horizontal position to rest or feed the horses. This can be done when the horses are either on or off the power, without in any way effecting the "line" or the tension of the drive belt. It is the only Tread Power whose revolving platform (on which the horses walk) has a genuine cog-gear driving connection, with gears on either end of drive shaft, the "cogs" of which each consist of an anti-friction (and anti-wear) roller. It is the only Power having self-oiling traverse wheels and has 50 per cent. less traverse wheels and other wearing points, than any other tread power, and consequently is the most free, light running and steady Horse-Power in the market.

This machine needs no attention (except occasional oiling), and can be stopped or started by a rope, having one end connected with brake-lever, and other end at most convenient place in office or grain elevator. The entire expense of this power when delivered, set up, connected and covered with suitable building, will not cost the purchaser any more than the cheapest "Sweep" Power and is vastly superior. SEE? It does not require one-quarter as large house as a "Sweep" Power.

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E. H. Pease Mfg. Co.

DEAR SIR:—I am using a Morton Tread Power, Style No. 3, Two-Horse, bought of you a year ago, and am running my stand of elevators which is 34 ft. high, with 5x8 in. buckets, placed 12 in. apart on link-belt, with a 1,050 lb. horse and it has given me better satisfaction than I expected when I bought it. I can do more work than any claim the manufacturers have ever made for it. I can elevate 740 bushels of oats, or 500 bushels corn per hour, with one horse. Yours truly,

J. W. STROMBERG.

ROSCOE, IA., Oct. 26, 1891.

HERE IS A PARTIAL
LIST OF

Recent Purchasers

FOR REFERENCE.

Winona Mill Co., Winona, Minn.,
(9 machines).
M. D. Stevers & Co., Chicago.
C. W. McNoun, Burrton, Kan.
Barnard & Leas Mfg. Co., Moline, Ill.
Frost Mfg. Co., (many Powers),
Galesburg, Ill.
Russell & Miller, Winneconne, Wis.
O. L. Marfield & Co., (many Powers),
Winona, Minn.
Porter Milling Co., Winona, Minn.
Bingham Bros., (many Powers),
New Ulm, Minn.
A. McMichael, Bryant, So. Dak.
A. F. Bornscheim, Brandon, Wis.
P. H. White, Credit River, Minn.
B. F. Uplinger, Kingston, Ill.
York Foundry and Eng. Co.,
York, Neb., (many Powers).
J. A. Campbell & Son, Lincoln, Neb.
Geo. Zion, Yarmouth, Ia.
E. Burt, Shannon, Ill.
A. Thorp, Flagg, Ill.
Turner & Brenner, Marshall, Minn.
Fawcett Bros., Tacoma, Wash.
Peterson & Smith, Olds, Ia.
J. A. Carton & Co., Aekley, Ia.
McLaughlin & Son, Austin, Minn.
L. H. Neff, Groton, So. Dak.
Bender Bros. & Co., Spencer, Ia.
Logan & Sleeper, Sheldon, Ia.
S. Walters, Bruce, So. Dak.

AND
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MORE.

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UNITED STATES.

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Grain Elevators and Mills,

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SHAFTING, PULLEYS, HANGERS,
PILLOW-BLOCKS, CLUTCHES, COUPLINGS,
GEARS, SPROCKETS, SET COLLARS,
TAKE-UP BOXES, CRANE-SPOUTS,
LEATHER, RUBBER, COTTON AND LINK BELTING,
"FLEXIBLE" AND "SWIVEL" GRAIN SPOUTS,
ELEVATOR BOOTS, BUCKETS AND BOLTS,
"SPIRAL" AND "BELT" CONVEYORS,
"PLATFORM," "DUMP" AND "HOPPER" SCALES,
GRAIN SCOOPS AND POWER GRAIN SHOVELS.

—ALL SIZES OF—
Farm and Warehouse Fanning Mills,
GRAIN TESTERS, SEED TESTERS,
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Receiving Separators.
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CORN SHELLERS, STEAM ENGINES, FLAX REELS
AND SPECIAL FLAX MILLS, "OVERHEAD,"
"SWEEP" AND "TREAD" HORSE-POWERS,
BAG-TRUCKS, SIX-WHEEL WAREHOUSE TRUCKS, ETC.

GAS ENGINES OR STEAM

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GRAIN TESTER.

E. H. PEASE MFG. CO. RACINE WIS.

HERCULES
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PAT. D. SEPT. 29th 1881.

Grain and Seed Testing Scale.

GRAIN AND SEED TESTER.

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SEE WHAT YOU
WANT,
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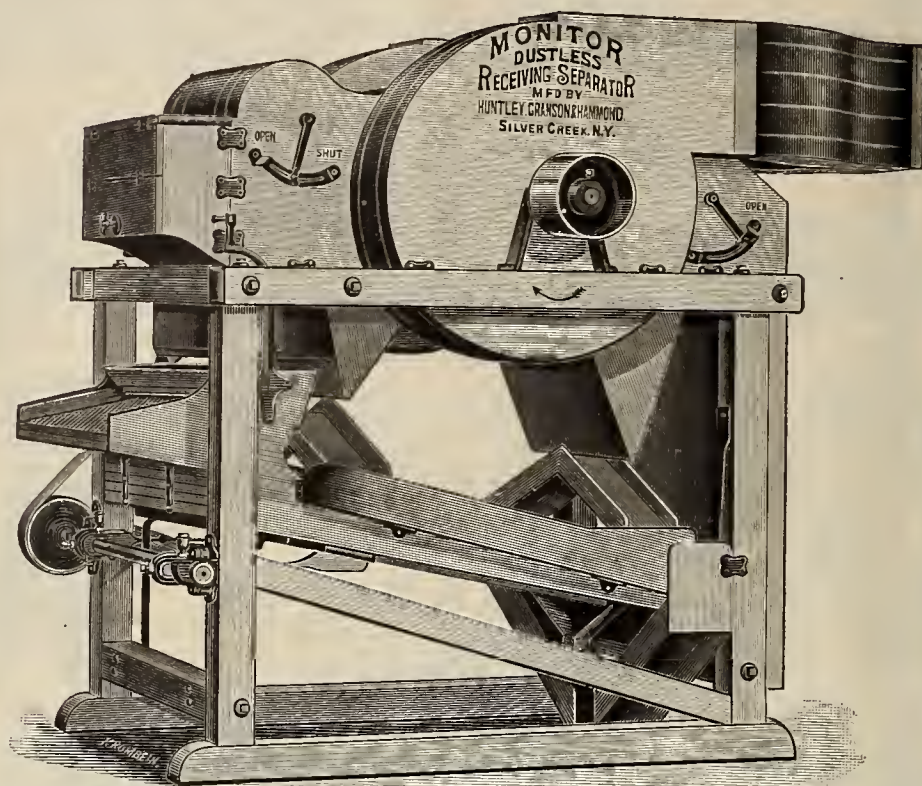
E. H. PEASE MFG. CO.,
RACINE, WIS.

SEE PAGES 73, 74, 75 and 76.

**SAFEST,
MOST DURABLE
—AND—
Powerful Puller
ON EARTH.**

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15 to 20 Loaded
Cars at once on
STRAIGHT
and LEVEL
TRACK
and pro-rata on
GRADES
and
CURVES

"HERCULES" POWER CAR PULLER.



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 More Than 1,800 Built and Sold.
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 Wonderfully Light Running.
 Absolutely Reliable in Capacity.

Built in eight regular sizes, ranging in capacity from 50 bushels per hour with fine screens to 2,500 bushels per hour with coarse screens, this machine is adapted to every requirement of warehouse and elevator service. You will find our

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Bearing in mind now, what is a fact, that the largest elevators in the world use and emphatically endorse this machine, don't you want to know something more about it?

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SILVER CREEK, N. Y.



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NEW CLEANING HOUSE AT SOUTH CHICAGO.

Two or three years ago an elevator was built at Englewood, Ill., on a new principle of construction for the purpose of cleaning grain. At the time the plan of construction was an experiment, the cleaners being placed on a separate floor with cleaning bins above and below. The idea of so placing the cleaners originated with E. M. Ashley, who has been in the elevator business for a number of years and stands high in the estimation of the trade. Mr. Ashley suggested this arrangement to an expert elevator builder, E. Lee Heidenreich of The Heidenreich Co., and he immediately prepared plans of a house so constructed. Most of the grain men who have been asked to examine the plan have scoffed at the idea of building a cleaning floor at the expense of storage capacity, but the arrangement has proved a success. The Englewood elevator has been doing business at a great advantage and is to-day handling more grain than some elevators of more recent construction and much greater capacity.

Chas Counselman & Co., in selecting plans for their new 1,250,000 bushel house at South Chicago, which is illustrated herewith, again adopted this arrangement of the cleaning machinery and let the contract to The Heidenreich Company of Chicago. It is conceded by every one who has seen this new house that it is the most complete elevator in the United States both as to construction and equipment.

The entire building is 152 feet wide on the dock which is in front of the high part and 159 feet long, forming almost a square. The cleaning part is built on piling and is 60x152 feet and 150 feet high. The storage part is 99x152 feet and 90 feet high. Each part of the building is independent of the other, so that the storage part can settle without interfering with the cleaning part. The storage bins are 76 feet 6 inches deep and 11x19 feet.

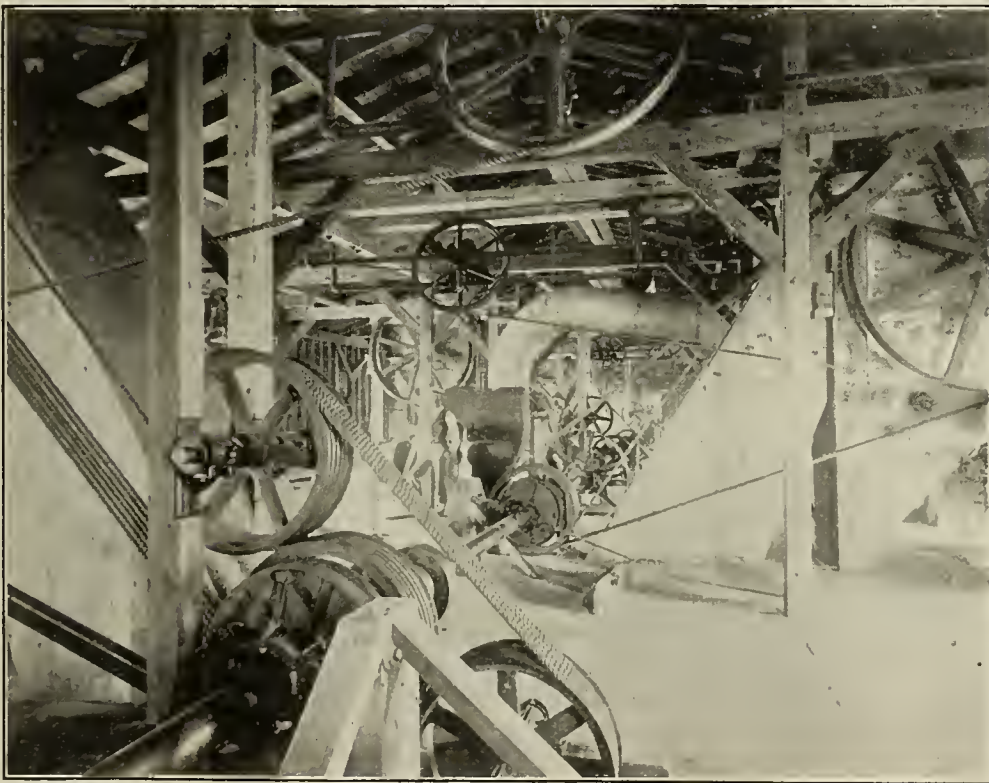
The cleaning part contains 64 bins, of which 32 are above and 32 below the cleaners, which are so arranged that each cleaner can receive from and discharge directly to a number of bins without aid of elevator legs. Herein lies the secret of the success of houses arranged on this plan. There are also thirty-two large capacity pocket bins. The cost of constructing the cleaning part is greater than of the old type of cleaning elevator, but the reduction in the running expenses makes this extra outlay a profitable investment.

On the ground floor of the cleaning part are two receiving tracks. The doors to the car entrances are rolling doors of corrugated steel. The receiving sinks are so far apart that four of the longest cars can be set in at once on each of the two receiving tracks. The receiving sinks are lined with steel and covered with iron grating, both outside and inside the track. A Hercules Car Puller and four pair steam power shovels are on this floor. There are four receiving and four shipping elevator legs between the two tracks, each having an elevating capacity of 6,500 bushels per hour. Each leg is

eight revolver spouts, four for shipping and four for receiving. Each revolver spout has twelve general spouts.

At the bottom and top of the storage part are four conveyor belts, with trippers and take-up boxes, extending into the cleaning part. Each belt is thirty inches wide and can convey 15,000 bushels of oats per hour. Each conveyor at bottom can receive grain direct from two rows of bins, and each conveyor at top can deliver grain to two rows of bins. The storage part has capacity for 1,000,000 bushels, and the cleaning part 250,000 bushels. It can clean 100 cars per day of ten hours, and receive 125 cars per day.

At convenient places about the building are large iron huckets on which are painted the words "For Dirty Waste Only." If the workmen follow instructions as they are now doing the fire risk will be greatly reduced. As is well known, oil mixed with fibrous matter is a source of spontaneous combustion. A standpipe extends up through the cleaning part and 100 feet of hose is attached on each floor. The dirt, dust, screenings and floor sweepings are drawn through a large pipe by a powerful fan over the boiler house and spouted into the fires under the boilers. Speaking tubes placed at convenient points about the building save much running. A small book chute or elevator with gong and speaking tube enables hooks and messengers to be transferred from ground floor to weighman's office. On the scale floor are light 1,000-bushel scales. Under the entire building is a basement with cement floor. On the roof we find a marked departure in the material used. It is of aluminum alloy metal and will not corrode. The slides are of corrugated iron.



TOP FLOOR OF THE NEW CLEANING HOUSE AT SOUTH CHICAGO.

equipped with double huckets 7x10. The foreman's office is also on this floor. The absence of noise even when the house is running at full capacity forcibly impresses the visitor.

On the cleaning floor are four No. 8 Excelsior Oat Clipper, Separator and Graders made by the E. H. Pease Mfg. Co. The products from each run into separate bins. This floor also contains six No. 8 Monitor Cleaners made by Huntley, Cranson & Hammond; also sixteen Vortex Dust Collectors. The main line shaft which is on the top floor of the cleaning part, illustrated herewith, is propelled by a rope drive direct from the main driver in the basement. Each elevator is driven by an independent rope drive from the main shaft, and each can be started from the first floor. On a floor below are

The power house which is in charge of Eugene Lind is a brick structure 40x70 feet, built 4 feet from elevator. The boiler room contains 4 boilers of 150-horse power each. In the engine room are two Buckeye Engines of 285 horse power each, a safety engine to drive a 150-light electric plant, a large heater for heating the water for the boilers by exhaust steam, double acting pumps for supplying the boilers and a 5 inch fire pump.

In the same building, with a wall intervening, are the offices of the elevator where Superintendent E. M. Ashley and the bookkeeper hold forth. The offices are well lighted and nicely furnished in natural wood. The circular brick smoke stack, built on piling, is 150 feet high. The coal house is built separate from all other buildings and can burn without the other buildings catching fire.

In all parts of the elevator one is impressed by the way the house is finished. The many sharp corners and rough places one sees in most every elevator are not to be found in this one. Even quarter round is used in many places. The stairs are not as steep as usual and a smooth round rail is at hand to guide one or to serve as an aid, but neither is needed as the way is well lighted, windows and incandescent electric lights being placed near by.

The elevator has ample track room, ten tracks of 1,000 feet each having been recently constructed. A fire escape ladder at one end of the storage part enables one to get out of the upper part on the outside. At one end of the cleaning part a beam extends from the base of the roof on which is attached a pulley by means of which heavy machinery can be easily elevated to the upper floors where large doors are provided to admit it.

Although it rained 51 days of the time granted for the completion of the elevator, it was finished on time, and 1,400 feet of dock were also constructed. Much of the credit for this quick work is due to E. N. Pratt, superintendent of construction for The Heidenreich Company.

The elevator has been receiving grain for some time, and is doing good work. It is claimed, and is no doubt, the finest grain cleaning house in the world, and is better situated for shipping grain by lake than the most of Chicago elevators. It is near to the lake and has a slip of its own, so that vessels will not be interfered with while loading, even should the traffic on the Calumet River grow to equal that of the Chicago River.

MIDDLEMEN IN TRADE.

There has been much complaint of the existence of what are called middlemen in the distribution of goods between producers or manufacturers and consumers, that they exact a toll which reduces the price which producers receive and enhances the cost to consumers, and coupled with this the complaint is made of the cost of transportation to market, that it is too great and burdensome especially to the farmers, most of the products of whom are bulky and cost high rates of freight.

That there are some instances in which these strictures are just cannot be truthfully denied, but as a rule they have little force. Competition has steadily reduced the cost of transportation and it is lower now than ever before. It has been found by practical experience that commission merchants or middlemen are an absolute necessity, and serve as useful a purpose in the economy of trade as either producers or consumers, and as a rule their compensation is only fair for the service which they perform.

It requires a high class of business talent and a sterling integrity of character to become a successful commission merchant, and the fact that many failures occur in that line of business only demonstrates that men are attracted to it who have not the requisite qualifications or capital, perhaps both. It would doubtless be very agreeable to producers to be able to realize at home all that their products sell for in distant markets, but as a rule this is impossible, and were it not for the transportation companies and the commission agents the crop could not be marketed at all, so that they are justly entitled to be paid for their services. Any one who thinks he can dispose of his crops to a better advantage in some other way is at liberty to try it, and many have tried it to their sorrow. Of course there are some who have contiguous markets who may be able to dispense with the services of middlemen, but their operations are on a small scale; all large businesses must of necessity be entrusted to others.—*Cincinnati Price Current*.

CLEAN YOUR SEEDS AND GRAIN.

Farmers and country shippers should give the cleaning of seeds more attention. Commission merchants in all the leading Western markets complain very much of this feature of their trade. Seeds forwarded to market in an improper condition are unattractive to buyers, and receivers are unable to dispose of them until the better staples have been closed out, and then in many cases sellers are compelled to accept such figures as buyers may be inclined to offer—rendering transactions very unsatisfactory to all parties concerned. A little more care in cleaning seeds would in many cases improve its grading and render possible its disposal more quickly and more satisfactorily. Good samples of seeds always meet with favor, while poor offerings are a drug on the market at anything like satisfactory figures.—*Grain Trade News*.

INFLUENCE OF SPECULATION ON MARKET PRICES.

Speculation in market prices is a very old topic for discussion, and has come in for its share of condemnatory criticism ever since the machinery of trade made its practice possible. In the main, such criticism has been directed either against the gambling element in speculation, on the ground that it is demoralizing in itself, or against the practice, once familiar in the security markets, of destroying real elements of value in order to profit, in a speculative way, from the subsequent course of events. Argument on these grounds could scarcely be said to have two sides. It has been reserved, however, for the current agitation against "future" trading to set up the claim that speculation is an evil because it defies the laws of trade and reverses the natural operation of supply and demand. That this notion should gain credence among ill-informed farmers, discontented with the fall in the world's grain prices and eager to find some cause which legislation might remove, is not strange. But the truth is, the belief that speculation fixes prices, irrespective of trade conditions, finds lodgment in other and far different brains from those of discontented farmers and demagogue legislators. It shows itself, here and there, even among habitués of the security market. It is certainly to be met at times in financial articles published for the enlightenment of business men. And it is safe to say that so long as such a belief is entertained among intelligent people, just so long measures like the Anti-Option Bill will get a respectful hearing.

The proposition may be unhesitatingly laid down, for the instruction of such hasty reasoners, that in the long run speculation never exerts the slightest influence on prices. We say in the long run because speculation may and in every extensive movement does bring prices temporarily to a point not warranted by the trade situation. A successful "bull movement" is sure to carry prices, whether in the security or produce markets, above the normal level, the reason being that natural conditions, such as the sale of security holdings by shrewd observers of prices, or the rapidly increased shipment of grain to market, will not immediately counterbalance the support of excited speculators. But eventually such conditions must regulate prices, and for the reverse movement which inevitably follows an excessive advance the term reaction has been invented, familiar to all speculative markets. What is true of a speculative advance in prices is equally of a speculative decline. The effort to depress railway stocks last August ran against such an obstacle and failed utterly. It passed the limit of decline justified by the timid demand, and at the lower level attracted real buyers into the market. The effort to renew in February last winter's advance met with similar collapse; because the demand for stocks, up to that time very urgent, proved to be exhausted.

The combination to put up Chicago corn prices last May was wrecked, not by the machinations of speculators, but by the increased supply attracted from country elevators. In 1888, when wheat was advanced to \$2 a bushel, much of the advance was normal, and the price would conceivably have risen to a "panic level," but for the unprecedented outflow of grain from Russia, called forth solely by the astonishing price paid, which made shipments profitable that never were profitable before.

The whole history of trade is a succession of such incidents, proving that speculation permanently fixes prices only where it works in anticipation of and in accordance with actually changed conditions. There is more confusion on this point in the stock market than anywhere else, because there the actual supply on the market is variable and largely governed by sentiment. Purchase of stocks for investment comes as near to the purchase of wheat for consumption as the conditions of the two markets will allow; but no holder of securities is so apathetic that he will not sell if the price offered for his holdings assures him an extravagant profit. Conversely, if a daring "bear" operator has forced the price of a stock down to ruinous figures, the real owner of such shares, whether holding them on borrowed money or not, is likely to sell in the belief that the decline has proved his stock's worthlessness. The market breaks again under this greatly increased supply, and it is plausibly argued that here, at least, speculation has proved superior to normal conditions. Yet such a view of the case is totally misleading. Confidence or lack of confidence is the foremost of all elements in the creation of security values. Confidence may be impaired and liquidation provoked

merely by resolute selling, backed, possibly, by false rumors. But if there is nothing more than this, a thoroughly artificial situation results, promptly reversed by the operation of the normal demand, increasing at the lower prices. This was the result of the "Chilian war scare" on the stock market last winter. The chief sufferers from that episode were the gentlemen who tried to prove that speculation on the stock market was independent of natural conditions.

One other point remains to puzzle hasty observers of the markets. It is noticed that in the argument against the Hatch Bill the assertion has been made that "future" speculation not only does not depress prices, but actually advances them. It is a poor rule that does not work both ways, and if speculation per se can raise prices, say the advocates of the bill, why can it not per se depress them? If prices are higher because of "future" trading, what becomes of the argument that speculation cannot permanently control prices? The answer is easy. From the nature of the trade the marketable supply of grain or cotton is created within a comparatively short time. The demand, on the contrary, is spread out equally over the whole year. If the farmers were to bring their crop to market as fast as it is ready, a glut in the market would follow. Consumers would not and could not buy all at once; consequently the farmer would dispose of his crop necessarily at bottom prices. Later on, as the supply diminished and the demand remained constant, prices would raise steadily; but of this advance the average farmer would gain no benefit. Under such imagined conditions, prices would invariably begin low and end high, with the high prices won by the middleman.

The speculator anticipates and discounts all this movement. Under his operations prices inevitably end the season lower than they would have ruled could his business have been extinguished. But on the other hand, prices at the beginning of the season are necessarily higher on such a basis than they could be if the farmers were left to manage the market for themselves. In July the speculator sells wheat for August delivery. This fixes a minimum for the August price. Wheat marketed a month from now can sell no lower, unless the market is swamped with supplies beyond the expectation of the most bearish speculators. It may sell much higher if there is not enough grain to make deliveries. In other words, the speculator's contracts equalize prices and put the market on a balance, and the producer is the plainest beneficiary. But equalizing prices is not controlling them. The notion that speculation can for a series of years control prices and defy the laws of trade is too palpable an absurdity to be allowed serious consideration.—*New York Evening Post*.

DULUTH'S FUTURE WHEAT SHIPMENTS.

The rapid increase in the number of flour mills at the head of the lake presents a problem for the grain shipper that he will do well to consider. During the past twelve months the wheat received at Duluth footed up to 53,000,000 bushels; on no former crop, however, has it ever exceeded 22,000,000 bushels. About 25,000,000 bushels, therefore, is likely to be all we can figure on for the future as the annual receipt of wheat under natural conditions. Now there is built and building at the head of Lake Superior flour mills that inside a year can be grinding at least 16,500 barrels a day. This is a trifle less than 100,000 barrels, or 450,000 bushels of wheat weekly. In other words the mills now assured will or can consume every year an even 25,000,000 bushels of wheat, or all that the head of the lake can expect to receive unless some forced methods are resorted to to bring more here. Who is likely to use these forced methods? Surely not the mill men for they have enough. Will the vessel men be able to carry very much in wheat? Besides these mills spoken of other outside men are frequently reported as figuring on locating plants here. Of course if the wheat is made into flour the flour must needs be carried, but there are lots of vessels that can't carry flour.—*Marine Record*.

Hay aggregating 9,064 tons was imported in June, against 7,666 in June, 1891; and 79,715 tons, valued at \$715,151, in the twelve months ending with June, against 58,242 tons, valued at \$445,461, in the corresponding period of 1890-91. We re-exported in the twelve months 151 tons of imported hay, valued at \$1,387, against 9 tons, worth \$73, in the corresponding months of 1890-91.

CHANGE IN MINNESOTA GRADES.

As is customary the Minnesota Warehouse Commission met the first of the month to receive suggestions for changes in grades for the ensuing crop year. The only changes recommended were by Chief Inspector Claussen in the following letter:

"The present crop of wheat is of a somewhat peculiar character in that the conditions which have tended to injure it and decrease its value in one direction have also benefited it and increased its value in another. The extremely hot weather and the general atmospheric conditions prevailing at the critical periods of its growth prevented its development into well filled heads, and

to wheat growers and shippers in the hard wheat belt.

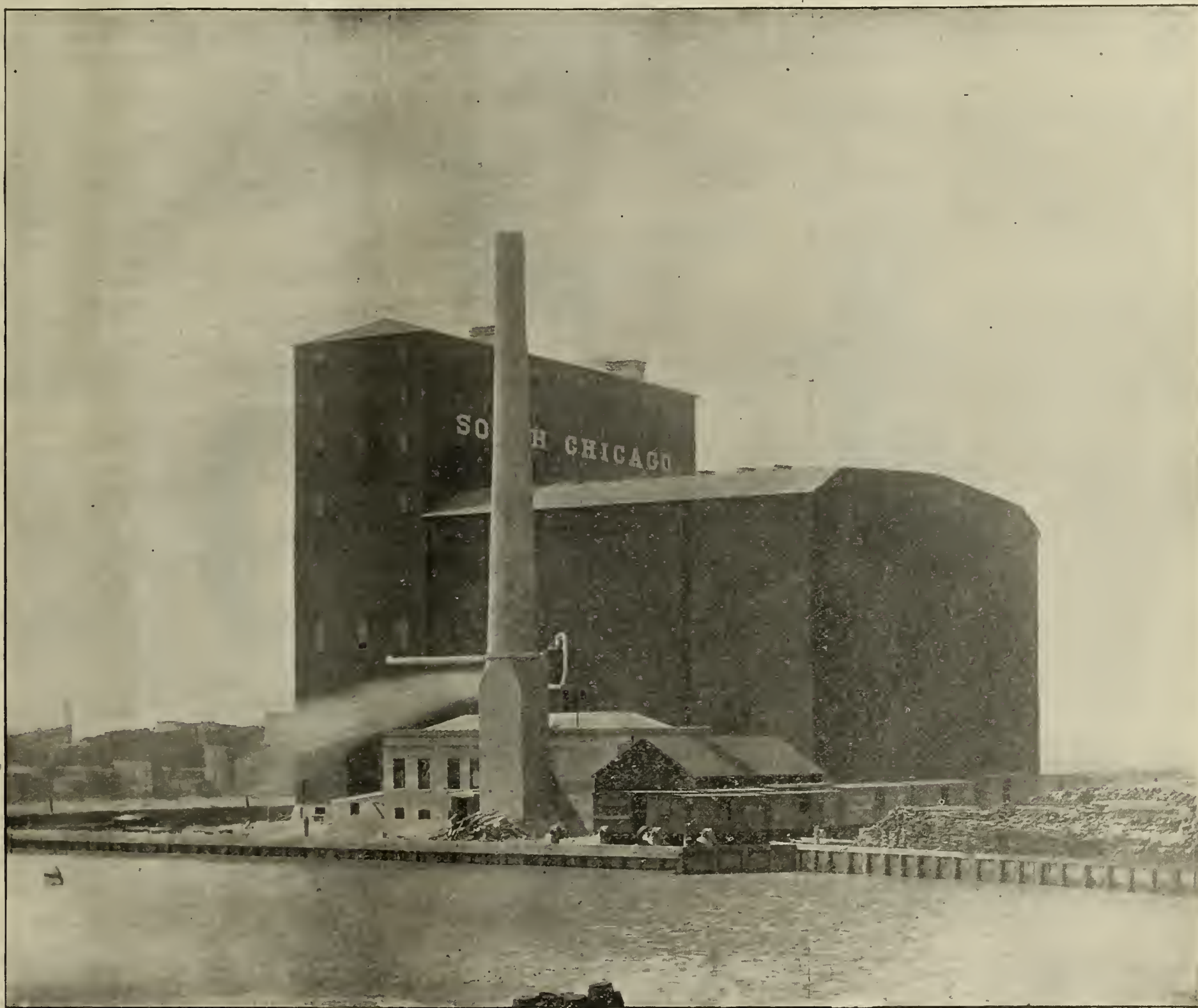
"Our established rules fix the minimum standard of weight per bushel for each grade as follows: No. 1 hard not less than 57 pounds; No. 2 Northern not less than 54 pounds. It is not necessary to explain that, with the exception of the No. 1 hard grade, it was laid down and is a matter of practice that the other grades could carry an admixture of soft, starchy wheat varying from 50 per cent. in No. 1 Northern down to exclusively soft wheat in the lower grades. The question to determine then is whether the hard, flinty Scotch Fife and Blue Stem wheats of the present crop, rich in gluten shall be lowered in grade because they do not meet the standard weight required, or whether such modifications shall be

present crop, and I have therefore no changes in this respect to recommend."

After granting several hearings and having the change thoroughly discussed before them the railroad and warehouse commissioners settled the question with the following decision:

Hard, flinty wheat containing no appreciable mixture of soft wheat, may be admitted to the grades of No. 2 Northern and No. 3 wheat, provided the test weight of the same is not more than one pound less than the minimum test weight required by the existing rules for said grades, and provided further that such wheat is in all other respects qualified for admission into said grades.

This decision was in accord with the recommendations made by Inspector Claussen with the exception that the



CHAS. COUNSELMAN & CO.'S NEW CLEANING ELEVATOR AT SOUTH CHICAGO, ILL.

rounding into plump, full berries, thus materially decreasing the yield per acre and the weight per measured bushel. At the same time the conditions mentioned above, while productive of unsatisfactory results in this direction, were, on the other hand, instrumental in producing a berry containing, in a large degree, that desirable element known as "gluten," which has in the past characterized Northwestern wheat and given it such a high and worldwide reputation.

"If the quality of the present crop of wheat is of a high standard for flour making purposes, it would seem that this fact would go a long way toward offsetting its defect in weight per bushel, particularly as it is held in our rules that 'weight alone shall not determine the grade.'

"I am forced to the conclusion that unless some modification is made in the existing rules, it will be a difficult matter to inspect and classify the present crop under present rules, and at the same time do substantial justice

made in the rules to cover this temporary condition above outlined.

"After a proper consideration of all the conditions hearing upon the situation, I feel constrained to recommend to your honorable board, that after and following the rule laid down for grading No. 3 wheat, the following note be inserted, viz.:

"Hard, flinty wheat containing no appreciable admixture of soft wheat may be admitted into the grades of 1 Northern, 2 Northern and No. 3 wheat, provided the test weight of the same is not more than one pound less than the minimum test weight required by the existing rules for said grades; and, provided further, that such wheat is in all other respects qualified for admission into said grades."

"It will be seen that the above proposed modification in no way abridges the force of the existing rules, or alters their language, but merely provides for a temporary condition. I will say to your honorable board, that in my opinion, the present rules for grading corn, oats, rye, barley and flax are sufficiently comprehensive to meet all possible contingencies and conditions of the

No. 1 Northern rule is not changed. This is the contract grade of wheat and the rule governing it was left unchanged because of the general sentiment against any such action which was expressed by grain growers and millers alike.

Broom corn valued at \$6,222 was exported in July, against \$7,576 worth in the preceding July; and during the seven months ending with July \$68,260 worth was exported, compared with \$119,295 worth during the corresponding months of 1891.

Barley malt amounting to 733 bushels was imported in July, against 212 bushels in July last year; and in the seven months ending with July we imported 4,026 bushels, valued at \$4,687, compared with 2,415 bushels, valued at \$3,203, in the corresponding months of 1891. In the seven months ending with July we re-exported 1,191 bushels of barley malt, valued at \$830, against none in the corresponding period of 1891.

A TEMPEST IN A TEAPOT.

The much talked of and exaggerated retaliation on the part of the United States Government against Canada has fallen in the shape of a mild proclamation by President Harrison, which imposes 20 cents per ton on all freight passing through the American Sault Ste. Marie Canal, bound for Canadian ports, which is the counterpart of our own government's discrimination of 18 cents per ton against freight passing through the Canadian Welland Canal, bound for American ports; and we must say it ill becomes the government portion of the press of the Dominion to rave against the action of the President of the United States for following the very precedent set by the authorities at Ottawa. Canada should remember that she is several years ahead of the United States in this matter, and it would be more graceful on the part of the government press if it appreciated its country's advantage with becoming silence. Has it not always been the pride of the ministerial press of Canada to point to the fact that American grain in American bottoms passing through the Welland Canal enjoys the same privileges as are accorded Canadian grain in Canadian bottoms, providing it is bound for Canadian ports? President Harrison, desiring to imitate the same magnanimous spirit of equality and fair play, has by proclamation made it known that Canadian grain in Canadian vessels passing through the "Soo" Canal have precisely the same privileges as those given to American grain in American bottoms, providing it is bound for American ports. The Washington authorities have therefore simply emulated the example of equality set them by our own government. Then why on earth are the latter's supporters endeavoring to brew such a big tempest in such a little teapot? They are simply making themselves ridiculous in the eyes of the outside world. The cause of the whole trouble rested with our own government in refusing to grant a rebate on grain passing through the Welland Canal and breaking bulk at Ogdensburg on its way to Montreal, the same as on grain breaking cargo at Kingston on its way to Montreal, thus discriminating against Ogdensburg, although grain coming via that port was the means of increasing the trade of the St. Lawrence. The authorities at Ottawa have at last admitted their mistake on this point by proposing to abolish the rebate on Welland tolls at the close of the present season, thereby obviating the discrimination against American ports.—*Trade Bulletin, Montreal.*

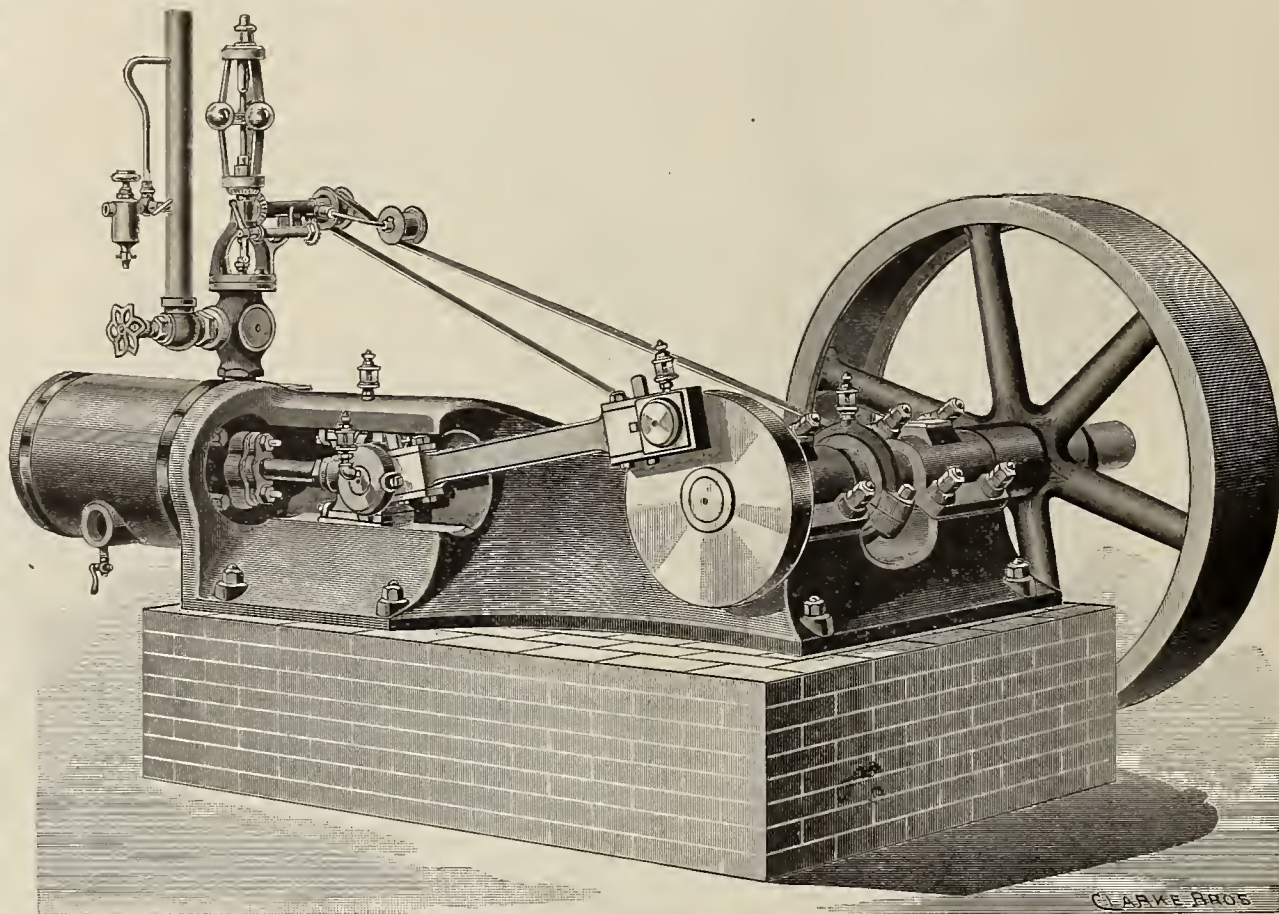
SPECULATION.

It is very difficult to define where legitimate business ends and speculation begins, as the two are so indissolubly bound together. The man who enters into business in these times without using his judgment regarding the best time to buy and the amount of stock to lay in, is a failure. Business now is run on such small profits, that unless traders use their speculative faculties or judgments, they will be left behind in the race for existence. The time has gone by when a merchant had only to order when his stock was low, regardless of values, as he had then merely to regulate his sales by the cost of his goods. Now, however, there are more competitors in the field, and unless he uses keen discretion in his purchases as to price, time, quantity and quality, he will soon discover that his neighbors are ahead of him through being able to sell at less money. In other words, the keenness of competition requires the exercise of men's speculative abilities to a far greater extent than in the past, when trade was prosecuted more upon purely automatic and routine principles. In order to keep abreast of the times,

people are now compelled to arrive at conclusions in advance, and thus by judging of their requirements in the future, and the probable course of values based upon supply and demand, they are enabled to lay in stock at the least possible cost, and thereby secure the greatest possible profit. It can therefore be discerned how short the distance is between legitimate speculation and speculation pure and simple, in which no merchandise is expected to change hands, and results are attained by settlements on differences, so that profits are realized and losses sustained, according to correct or mistaken judgments, without the restraints and shackles attendant upon legitimate trading. And we contend that where such speculative trading is carried out by actual contracts which are fulfilled as faithfully as if the profits and losses were made upon the actual receipt and delivery of goods, it is not so objectionable as trade purists have endeavored to make out.

AN IMPROVED ENGINE.

We herewith present an illustration of an improved engine brought out by the W. C. Leffel Company. It will be seen that it is of the self contained, side-crank type, heavy, strong and graceful in design, the metal being so distributed as to insure the greatest strength and



AN IMPROVED ENGINE.

durability. The cylinder is bolted to the head of main frame in a substantial manner, and the guides are cast with and made a part of the bed-plate. Heavy adjustable brass shoes on cross-head are arranged to take up wear. The connecting rod is forged and is provided with heavy adjustable brass boxes, finished with wrought iron straps, keys, etc.

It has a plain slide valve, the motion being transmitted to same through a rocker-arm in a simple and substantial manner. Great attention is given to all the working parts, and the engine is thoroughly well built throughout.

The difficulties attending the proper adjustment of an outstanding bearing have made this class of engines very popular, as they are self contained and no adjustment of the outstanding bearing is required. Further information will be cheerfully given by the W. C. Leffel Company, Greenmount avenue, Springfield, O.

Isn't it a little queer the number of elevators that are being destroyed by fire of late? Within the past few weeks there have been four burnt to the ground, all within a radius of 35 miles. First the Durant elevators, then the one at Walcott, and on Friday night the one at Letts fell a victim to the flames. In each case no solution of how the fires were started can be given. Certain it is that the loss is great, not only to the owners, but, in a business light, to the citizens of those towns as well.—*Review, Wilton, Ia.*

RICE IN LOUISIANA.

The success which has attended rice growing in Louisiana has caused a large increase in acreage this year, and it looks as though the coming crop would be the largest ever grown in the country. M. B. Hillyard, who has been traveling in the rice district, gives some interesting information about his investigations as to shipments from the region between Lafayette, La., and the Sabine River, and from Lafayette to Washington, La. He says:

"Before I marshal my facts it ought to be stated that the harvesting of rice in what I would denominate the Western rice belt is done by improved machinery, as is done at the West in harvesting wheat, oats, rye and such. These are great labor savers, admit of far greater expedition in saving the grain, and, in the end, are cheaper. Indeed, without them in some parishes it is doubtful if the crop could be saved. Their one disadvantage is that they are somewhat out of place in harvesting rice when ripening unevenly.

"Again, another advantage thus far in the rice belt of West Louisiana is that there is no cost for weeding rice. The soil does not send forth to any appreciable extent noxious weeds to infest the soil. It is quite a common criticism of this Western area by the planters this side of Lafayette that the trans-Lafayette area will soon play out

in rice raising on account of poverty of the soil. This criticism is premature. Such is not the case now. If it should be proven that the crop is deteriorating from exhaustion of soil the people there are smart enough to fertilize, and a few are doing so with satisfaction. And it is likely to become general.

"I have been careful to inquire if the placing of such an immense area in rice does not make the country unhealthy and largely increase febrile diseases. The doctors say not. I suppose the strong salubrious breezes from the gulf dissipate mephitic atmospheres and 'winnow fragrance.' Certainly it is a wonderful attestation of the anti-malarial effect of these sea-born gales that they should neutralize the natural tendency of this large area of flooded land covered, too, with deadly water.

"The country out there in the Western rice belt is using

a great deal of imported machinery to the value of millions. Thus, there must be over 2,000 twine binders, 125 steam threshers, 500 mowers, engines for gang plow, gang plows, riding cultivators, etc.

"So it would seem that rice is here to stay, unless the duty on the foreign product should be repealed, or unless prices should greatly decline. The problem of the day is to have as many markets to ship to as possible. By proper effort St. Louis and Chicago could be aroused, and there ought to be a 'campaign of education' to induce the consumption of rice in this country similar to that conducted by the West to induce the consumption of corn in Europe, by parties going about there and making various delicious dishes from it.

"Then, rice mills should be put everywhere in the country where they are justified; and every way in which rice can be manufactured into any use should be encouraged to go to this great scene of production. Rice flour is in great requisition as any article of the toilet. Why not have this industry? Rice straw is a fine paper material. Why not have paper mills? Rice polish is a fine cattle food. Why not press it into larger service?

"If the business of rice raising be profitable this year, it has only begun. If it gets a reverse it may have a great backset. The railroads are immensely interested in encouraging it. It will bring them an enormous business—does now. If the people prosper, the business of the railroad will grow with it.

"I now proceed to give a summary of rice shipments

the past year. Calcasieu parish shows as follows: Jennings 573 cars, Welsh's 312, Lake Charles 166, Iowa 81, Vinton 27, Sulphur City 16—total 1,177. I have no returns from Edgerly, and decline to estimate it. Out of Calcasieu Pass there went 24,000 sacks of rice. This makes 200 carloads more on the basis of 21,600 pounds to the car. This makes 1,377 cars for Calcasieu parish last year. Acadia's shipments were as follows: Mermentau 648 cars, Crowley 1,356, Rayne 431—total 2,435 cars. St. Landry parish shipments were thus: Washington 278 cars, Opelousas 833, Sunset 58—total 1,169. Lafayette parish shipped: Duson 142, Scott 71, Lafayette 8—total 221. The reader must remember that having no returns from Duson, I have conjectured the quantity to double that from Scott. By parishes it stands thus: Calcasieu 1,377, Acadia 2,435, St. Landry 1,169, Lafayette 221—total for the four parishes, 5,202 carloads of 21,600 pounds each for the current year.

"The rice raisers of Western Louisiana will think my enumeration of large crops rather meager, but I cannot enlarge it here. The reader must understand that if there were shipped 5,202 carloads of 21,600 pounds each—and that is too low—I am entitled to assume that there will be twice as much this year, for these reasons:

"The rice crop in Southwest Louisiana last year in the parishes of St. Landry, Acadia and Calcasieu was measurably a failure. That is one reason why so many went into irrigation this year.

"This year everybody has water, and pumps have hardly been used in many instances.

"Almost without exception every one who planted rice last year has planted twice as much this year, and many three or four times as much.

"There are hundreds of men who never planted an acre in rice who have gone into the business this year. Some of them have gone into it so strong as to make a tremendous increase in area where there was no rice before."

INSPECTION AT COUNTRY POINTS IN MICHIGAN.

The system of grading in use by the Detroit Board of Trade is all right, and we never asserted anything different. It is the extension of that system into the interior, so as to enable grain growers to secure its benefits that we have been contending for. There is only one place in the state where grain is graded—Detroit. The greater part of the Michigan crop is so changed by mixing and adulteration before it reaches the Detroit inspector, that his grading, while perfectly in accordance with the condition of the grain when it reaches him, furnishes the farmer no criterion by which to judge of the value of his crop. He therefore sells his crop upon the basis of the value of the mixed grain as decided by the Detroit Board of Trade's inspector. Not a bushel of the fine wheat crop of a year ago brought the farmers a cent over the value of No. 1 white or No. 2 red, while millions of bushels would have graded No. 1 red or extra white had it reached the inspector in the condition it was sold by the farmer. That is what we object to. The difference in the value was secured by the grain mixers, and the adulterated grain formed the basis upon which the grain growers were paid for their crop. This difference on last year's crop was fully four cents per bushel on two-thirds of it. —Michigan Farmer.

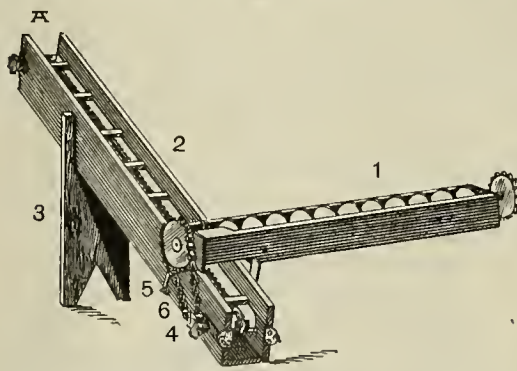
The wisacre who wrote the foregoing should go into the grain business or get some one to explain this matter to him. He forgets that the farmers market more wheat of inferior grade than of high grade, and that the average market value of the whole is increased by mixing and cleaning. By this means the elevator man is enabled to secure more for each crop. It is his business to market the grain in the way that will bring the greatest returns. If he does not clean and mix it the dealers at central markets will surely do so and get the profit he could have secured. By cleaning and mixing the grain the country elevator man is enabled to pay better prices to the farmer. As long as we have grain dealers who are alive to their own interests and who know how to market grain to the best advantage this work will continue and rightly too.

The chimerical scheme of establishing state inspection at every country grain market will never be carried out. A few cranks might succeed in enforcing such a plan for a short time but it could not last long for the cost to farmers would be more than they would bear. The inspection would be unreliable and worthless, and country dealers or farmers would pay no attention to such grad-

ing for it could satisfy neither. Elevator men are not such chumps as to buy grain upon the judgment of others when they have the stuff right before them.

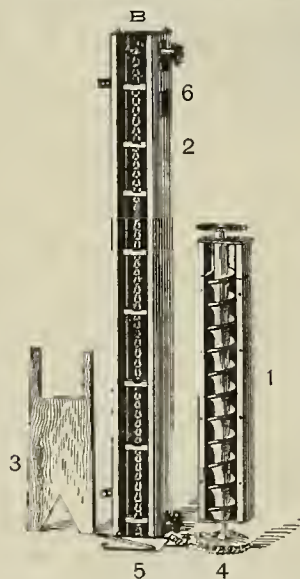
HASTINGS GRAIN CONVEYOR.

This is a device which is adapted for loading cars rapidly with grain conveyed from the warehouse to the car by mechanical means, and it is at once expeditious and labor saving. The apparatus not only embodies means for conveying the grain to the car, but disposes of it back into the ends thereof, so that no shoveling is required. The invention is patented by Mr. Henry M. Hastings of Cooksville, Ill. In the arrangement of this apparatus for operation, a spiral conveyor trough is projected from the side of the warehouse. One end of the conveyor trough projects into the grain house and is driven by steam or any other power. The outer end of the trough is projected into the car, preferably centrally thereof, and connects with an inclined chute or dump,



THE HASTINGS CONVEYOR IN POSITION.

which is arranged to be reversibly adjusted within the car body—i. e., it is adapted to first fill one end of the car and then be detached from the conveyor and be again connected therewith and projected in the opposite direction, whereby to carry and dump the grain to fill the other end of the car. The end of the conveyor trough is connected with the lower end of the elevator chute to feed the grain thereto, the shaft of the chute being extended and provided with a sprocket, which has a chain connection with a sprocket mounted upon the end of a transverse shaft journaled in the lower end of the chute,



THE PARTS OF THE HASTINGS CONVEYOR.

and over sprockets on said shaft and a similar shaft; in the upper end of the chute is passed an endless carrier belt, which is provided with a series of wooden transverse flights, which carry the grain up the elevator chute and discharge it through an opening in the upper end, which end is braced and supported in a portable frame or jack. The shaft is also provided with a sprocket, and an opening is formed in the lower end of the chute, which opening is, however, held closed by a slide or gate. This construction admits of the chute being reversibly adjusted for the purpose before stated, it being only necessary to disconnect the sprocket chain from the lower sprocket and close the opening in the upper end of the chute, open the lower opening, move the upper end under the chute, connect the sprocket in such end with the shaft, and support the chute to discharge the grain to the other end of the car. The chute is anchored to the floor by a hook bail that is readily disengaged for reversal or for moving. The pitch or incline of the chute is adjustable by its support.

Cut A represents trough with conveyor inside to carry grain into carrier No. 2, which is standing lengthwise in

car to carry the grain to the end of said car. No. 1 is made fast at the end, being connected with the elevator by means of an adjustable clevis which holds it to its proper position when in operation, while the end to which carrier No. 2 is connected is supported by means of an inclined jack from elevator, which makes Fig. 1 independent of car, and is designed to be hung just beneath the frame of the side door of car. The elevated end of carrier No. 2 is supported by jack No. 3. To remove device, disconnect sprocket chain No. 4, also remove pin in clevis No. 5, then carrier will be free to move anywhere. To fill opposite end of car move carrier 2 lengthwise, connect chain 4 and clevis 5 as represented in cut A. Remove slide No. 6 in the middle partition of carrier 2 near the end, represented in cut B, which will allow the grain to pass through into second floor and out to the end of car. Cut B represents the device separately. Sprocket wheel 7 is where the power from horse power or steam is connected to propel the device.

AMERICAN WHEAT WANTED IN PERU.

World's Fair Commissioner Tisdell, writing from Peru, says:

I am surprised to find that only Americans stand in the way of large and constant sales of wheat in this market. I have visited the Santa Rosa Mills where every month in the year more than 1,000 tons of wheat are reduced to flour, wholly for consumption at home, and this is only one of many mills which grinds wheat from nearly every country but the United States. Proprietor Milne assured me that he had tried to get rates from the steamship companies which would enable him to buy wheat in the United States, but that it was impossible. The lowest rate he was able to get from San Francisco was \$17.50 a ton, while from Australia he gets a rate by steam (tramp steamers) of \$9 a ton. From Chili the rate is \$4 a ton, and from the Argentine Republic \$11 a ton. Mr. Milne assured me that he preferred California wheat and that he is willing to pay a higher rate than from any other country, but that the lowest rate he can get from California is so arbitrarily high he cannot buy in that market. He tried to freight wheat from California by sail, and has been somewhat successful, though he has been compelled to abandon this method because of the long time required by the vessels in making the voyage, often occupying eighty to 100 days. Wheat entering the port of Callao is estimated at 60,000 tons per year, while to other ports, including Mollendo (for Arequipa), there may be added another 25,000 tons. The greater part of this wheat might come from California if the steamship companies would make it possible to transport by steam. This is a matter well worth the attention of those interested in growing, selling and shipping wheat, and there is no telling what the trade might not be brought to if the Pacific Mail Steamship Company can be induced to make favorable rates in connection with the West coast steamers for transportation to this country.

BUT ONE SPECIES OF CORN.

Botanists recognize but one species of corn. While there are many colors and forms of grain, many sizes of stalks, leaves and ears, the varieties are all on the same plan, having the same characteristics and habits so far as they are not changed by soil, climate and cultivation. The corn plant is monœcious—that is, the stamens and pistils are in separate flowers on the same plant, the former a terminal panicle or tassel, each spikelet of which contains two glumes with two palæ and three stamens each; the latter made up of fertile flowers on the cob and double—one supplied with an ovary and long style or silk, stigmatic on the upper portion of its length, the other flower abortive. Each kernel on the cob, consequently, has two styles or silks. Should any of the silks fail to protrude, as is often the case, no grain will be developed on the cob in the places from which the silks springs hence the missing rows and grains so often seen on the cob after husking.—Prof. A. E. Blount.

Hiram Waltz, a rich grain merchant of Buffalo, N. Y., and Joseph Dukes, a prosperous farmer residing near Bluffton, O., have made a novel bet. If Harrison is elected Waltz is to pay Dukes 70 cents per bushel for 10,000 bushels of corn. If Cleveland is elected Dukes will deliver the corn to Waltz in Buffalo free of charge

LEGALITY OF SPECULATIVE TRANSACTIONS.

A clear statement of the law regarding the legality of speculative dealings is given in a decision by the Supreme Court of Pennsylvania in the case of Peters vs. Grim, decided by the Supreme Court of Pennsylvania. This was a suit to recover back money left with a broker as margin on stock operations which has been concluded. The court, in an opinion written by Judge Mitchell, held in substance that a purchase of stock for speculation, even when done merely on margins, is not necessarily a gambling transaction, and that if there is in good faith a purchase the delivery may be postponed or made to depend on a future condition, and the stock carried on margins or otherwise in the meanwhile without affecting the legality of the transaction. The court says in its opinion: "A purchase of stock for speculation, even when done merely on margins, is not necessarily a gambling transaction. If one buys stock from A and borrows the money from B to pay for it, there is no element of gambling in the operation, though he pledged the stock with B as security for the money. So, if instead of borrowing the money from B, a third person, he borrows it from A, or, in the language of brokers, procures A 'to carry' the stock for him, with or without margins, the transaction is not necessarily different in character; but in this latter case there being no transfer or delivery of the stock, the doubt arises whether the parties intended there should ever be a purchase or delivery at all. Here is a dividing line. If there was not, under the circumstances, to be a delivery as part of and completing a purchase, then the transaction is a mere wager on the rise and fall of prices; but if there was in good faith a purchase, then the delivery might be postponed or made to depend on a future condition, and the stock carried on margins or otherwise in the meanwhile, without affecting the legality of the transaction."

This view of the law is in harmony with the view taken by the Supreme Court of the United States in, for example, the case of Irwin vs. Williar. In this case, decided as long ago as 1884, the court held that a contract for the sale of goods to be delivered is valid, even though the seller has not the goods nor any other means of getting them than to go into the market and buy them, where there is a real intention that the goods are to be delivered by the seller and that the price is to be paid by the buyer. This point of view is taken in spite of the fact that, as Judge Mitchell says in his opinion, the law of Pennsylvania is exceptionally severe in dealing with stock transactions in which the element of speculation enters.

In touching on this point Judge Mitchell says: "In dealing with stock transactions, falling within or in any way connected with wagering contracts, the law of Pennsylvania is of exceptional and, for myself I would say, of illogical and untenable severity in its interference with the business contracts of parties *sui juris* and entirely competent to manage their own affairs. But even in this class of cases the decisions have only gone so far as to sustain the opening of the whole transaction, after it has nominally closed, where the demand is for a part of the actual gains or losses of the illegal act. Even *Fareira vs. Gabel*, 89 Pa. 89, and *Ruehigky vs. De Haven*, 97 Pa. 202, two extreme cases, of which it is justly said by Mr. Biddle, in his 'Law of Stock Brokers,' page 308, that they are 'opposed in principle to all the decisions both of the English courts and of every court of every state in the Union,' are decided upon the ground that the cause of action was lost in the illegal transaction. Gains in the same transactions would undoubtedly stand upon the same footing, but it must be said, to the honor of a class of business men often harshly criticised, that cases of refusal by a broker to pay over profits to his customer are of the rarest occurrence."

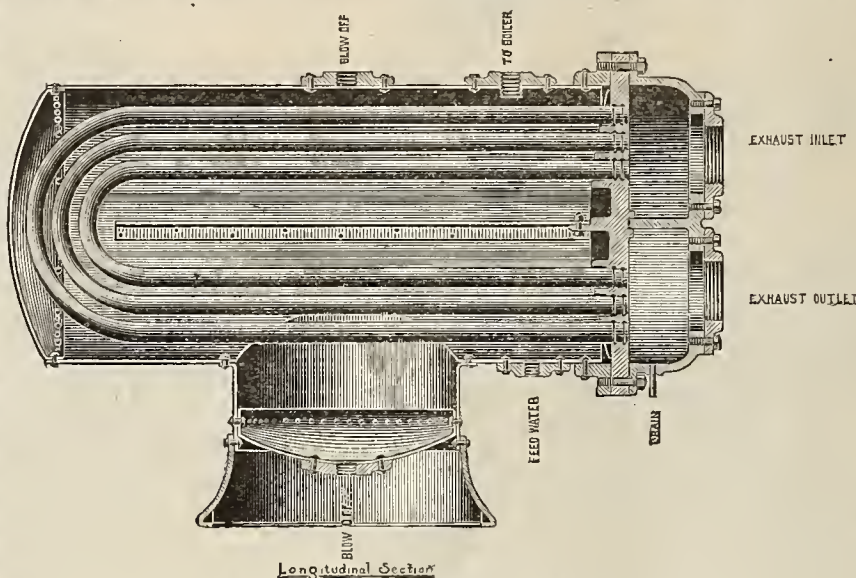
This decision, while it does not in reality make any distinctly new statement of the law, is of special interest at present because of the confusion which exists in the minds of many as to the legal status of speculative transactions. If it were not for this confusion the Hatch Anti-Option Bill would lack no unimportant share of the support which it has attracted. It is hardly possible that the bill could be pressed by its promoters with any hope of success if it were clearly understood that it rep-

resented governmental interference with lawful transactions, with contracts between persons capable of contracting, and that it, in fact, represents an attempt to annihilate a particular kind of business heretofore and still held legal by the courts, which enunciate the law in its reason and philosophy, judging by principles which have stood the test of centuries, instead of voicing the outcry of ephemeral sentiment or passion, as the enactments of legislatures too often do. Part of the argument of the promoters of the Hatch Bill is based upon the contention that the business which that measure aims to suppress is gambling. How untenable that position is, judged by the standards applied of our jurisprudence, is apparent from such decisions as those quoted above.

STILWELL'S PATENT CLOSE HEATER.

For more than a quarter of a century the Stilwell & Bierce Mfg. Co. of Dayton, Ohio, have made a specialty of manufacturing devices for heating and purifying the feed water for steam boilers. Their latest contribution to that branch of industry is the Stilwell Patent Close Heater herewith illustrated, for which the following points of superiority are claimed:

The heating tubes are seamless brass, U shape, and so fastened into the tube sheet as to be absolutely tight. The base on which the heater stands, serves also as a middle or settling chamber, for the deposit of impurities, which can be readily blown off. Deposits of impurities in this



STILWELL'S PATENT CLOSE HEATER.

settling chamber do not diminish the heating power of the heater.

The cold feed water enters the heater near to the steam exit end of the tubes, thus offering the most favorable conditions for extracting the most heat from the exhaust steam. The diaphragm which separates the shell into two equal sections, compels the feed water to traverse the entire length of the heating tubes, and its exit from the heater is made at a point in close proximity to the incoming exhaust steam, thus insuring the highest possible temperature of the feed water.

The construction of the heater admits of its being taken apart if necessary for cleaning, the tubes and tube sheet can be readily removed from the shell for that purpose. Parties interested can obtain further particulars by addressing the manufacturers as above.

CARLOADS AT NEW YORK.

Since August 15 cars of grain arriving at New York City have been estimated as follows:

	Bushels to a Car.	Heretofore.
Wheat.....	775	750
Corn.....	800	775
Oats.....	1,050	1,035
Barley.....	775	750
Rye.....	800	775
Malt.....	1,050	1,025
Peas.....	550	550
Buckwheat.....	775	750
Flaxseed.....	800	775

A LARGE demand for corn shellers and feed mills exists in Mexico. Those made in the United States are preferred by the Mexicans.

PRIVATE CARS AND THEIR ATTENDANT EVILS.

[Read before the National Association of Car Service Managers by A. M. Simmons.]

I believe it was the Time Convention—now the American Railway Association—which first conceived the idea of the car service association for rectifying the abuses which had grown up, resulting in the misuse of freight car equipment. They understood the many obstacles in the way of success, and all the conditions confronting them were fully taken into account. They formulated a code of rules from theoretical ideas, which have in practice been found practical and almost free from mistakes. We cannot charge, therefore, that their rule relating to private cars was a mistake, for they certainly evolved the best rule possible, consistent with the well-known attitude and power of the private car owners and shippers. The rule was as follows:

When both cars and tracks are owned by the same party, no charge will be made; but when private cars are detained on the tracks of other firms or individuals, or on tracks belonging to or operated by members of this association, or cars belonging to the latter on private tracks, the established charge will apply.

This rule exempts from car service regulations private cars on private tracks when both car and track belong to the same party; but it does not exempt such private cars when delivered upon sidings owned by private individuals other than those owning the cars, but treats them in the same manner as cars owned by a railroad company.

The rule *per se* of exempting private cars from car service regulations, after being placed upon the private sidings of their owners, cannot be criticised; but considering it in connection with the entire question of the employment of private equipment, it appears prolific of evil, embodying many features of discrimination.

This subject appears to me so vital to economic management of railroads that we should not evade a full and honest discussion, and yet when we endeavor to comprehend the subject we are astounded at the growth of this eating ulcer so fraught with evil consequences. We realize, too, that it would be almost an endless undertaking to fully discover all the leeching properties of the private car. It is seen to be an evil with not a single redeeming feature, and has no legal or moral right for existing. It would be an interesting chapter in the history of modern transportation if we could take a retrospective look covering a period of about 15 or 20 years, and relate how, step by step,

the private car came to be used by the railroads, and how innocent it first appeared; but for the purposes of this discussion it will only be necessary to say that no longer ago than 20 years such a thing as a private freight car was not known, while today there are upwards of 70,000 of them in service as vehicles for moving the products of the country to market over the rails of the various railroads. These cars are owned principally by oil producers and shippers, coal miners and shippers, coke producers and shippers, live stock raisers and shippers, dressed beef shippers and pork packers. These interests control vast volumes of freight, and naturally wield a mighty influence with the traffic departments of the railroads of the country. Allow me to invite your attention to some good authorities which prove how potent these influences are, and which also show that the use of the private car results in unjust discrimination. In the report of the committee on "Discrimination Arising from the Use of Private Cars of Shippers," submitted to the state railroad commissioners at their annual convention held in Washington on April 13 and 14, we find among other evils enumerated the following with reference to live stock or palace cars, but equally truthful with reference to all private cars of shippers:

The discriminations resulting from this practice are at least three fold: 1. The mileage allowed is excessive, enabling the recipient to use a portion thereof as a rebate or inducement to secure shipments. 2. The special facilities afforded by the private cars enable those using them to practically monopolize the market, to the exclusion of small shippers who cannot control such equipment or readily procure it from the railroads; and, 3. The owners of such cars obtain annual passes as an "exchange courtesy" for their officers, and on the ground of necessity for their agents in order to keep watch of the cars and expedite their return. To such an extent was the latter abuse carried that, as an extreme case, it may be remarked that a wholesale firm owning a single car is

said to have appointed one of their number president, another vice-president, and a third general manager of the solitary car, and thereby obtained annual passes for the three officers entitled to the "exchange privilege."

The committee's report on this interesting subject further says:

The enormous profit arising from such operations naturally led to the rapid development of the private car evil, which has grown to such proportions as to provoke a strife for business, resulting in serious discrimination between shippers, to say nothing of the illegitimacy of the practice, and the resultant evils to the railways themselves. In an investigation made by the Interstate Commerce Commission in 1890 in the case of *Shamberg v. the Delaware, Lackawanna & Western Railway Company*, it was shown that the operation of the so called Lackawanna Live Stock Express Company netted to its owners, who were also shippers, an income of over 50 per cent. per annum on its invested capital, amounting on 250 cars for two years to \$171,532.20, or a little more than \$343 per car per year. This may perhaps be an extreme case, but the average number of private cars on railway lines as compared with the cars owned by the roads, is sufficient to show the alarming proportions this traffic has assumed.

The decision of the Interstate Commerce Commission in the case of *Rice, Robinson & Witherop v. the W. N. Y. & P. R. R.*, also, has a special and forcible bearing on this subject. We beg to quote as follows:

It is not the business of the shipper to furnish a vehicle of transportation. That is the duty of the carrier. Under its franchise the carrier must do more than construct his roadway. He must equip it with the means of transportation, and these means, of whatever style or pattern, must be open impartially to all shippers of like traffic. If the carrier hire or arrange in any manner for the use of vehicles he does not own, he has one of two things to do. He must furnish like vehicles to all competitors in the traffic, or must be careful to make no unjust discrimination and give no undue preference in his rates. For all transportation purposes, so far as the public is concerned, a carrier makes every vehicle his own that he uses on his road, no matter how acquired. His responsibility to the public is the same in respect to rates and other transportation duties, whether he owns or hires his vehicle. When, therefore, he accepts tank cars owned by shippers who can afford to build and furnish them, and has none of his own to furnish to other shippers, but can only supply box cars in which barrels must be used for the oils, he is bound to see that he gives no preference in rates to the tank shipper, and that he subjects the barrel shipper to no disadvantage. It is at this point that the duty of the carrier to the public is rigorous, and where no plea of inability to furnish tanks or other excuse is admissible.

If the carrier, whose duty it is to furnish vehicles of transportation, cannot afford to do so impartially for all his patrons engaged in like business, the ordinary shipper is likely to be less able to afford it, and cannot be required to perform the carrier's duty. He might as well be asked to furnish motive power as vehicles of carriage. The carrier cannot transfer his own responsibility to the shipper. The duty to furnish impartial transportation cannot be evaded on any pretext. It is fundamental and imperative.

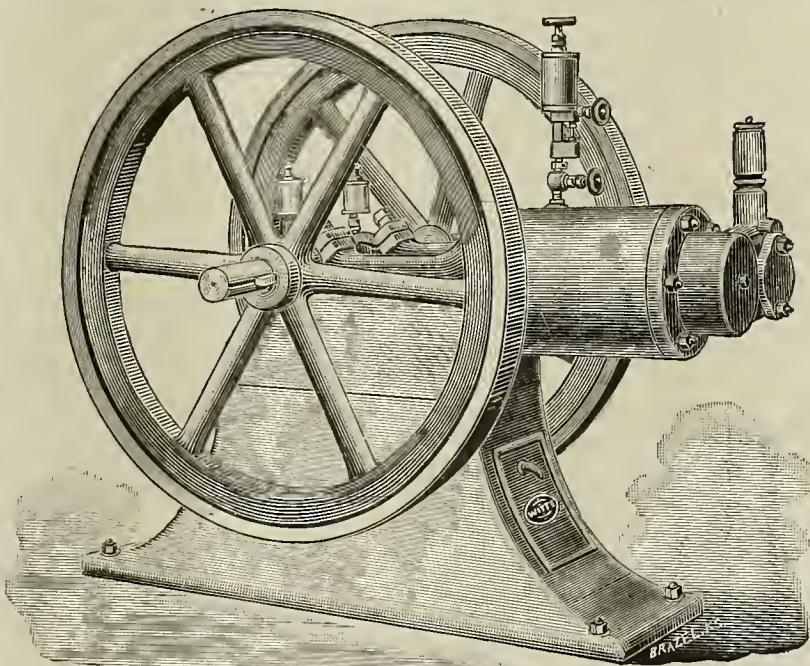
The decision of the Supreme Court of Ohio (47 Ohio, page 130,) rendered March 4, 1890, is exactly in accord with the decision of the Interstate Commerce Commission just cited. This was an action instituted by the small shippers of oil at Marietta, Ohio, against the C. N. O. & T. P. Ry. Co. charging discrimination in freight rates on oil in favor of the shippers in tank line cars, as against shippers of oil in barrels. The court said:

It appears that of the two methods of shipping oil, that by the barrel in carload lots and that in tank cars, the first only was available to George Rice and the other refiners of petroleum at Marietta, Ohio, as they owned no tank cars, nor did the defendants own or undertake to provide any; but that both methods were open to the Camden Consolidated Oil Company and the Chess-Carly Company by reason of the their ownership of tank cars, and that the rate per barrel in tank cars was much lower than in barrel packages in box cars; that in fact the Cincinnati, Washington & Baltimore Railway Company, after allowing the Camden Consolidated Oil Company a rebate, and allowing the Baltimore & Ohio Railroad Company for switching cars, received from the Camden Consolidated Oil Company only about one-half the open rates it charged the Marietta refiners, and that both companies claimed the right to make different rates, based upon the different methods of shipping oil, and the fact of the ownership by the shippers of the tank cars used by them. It was the duty of the defendants to furnish suitable vehicles for transporting freight offered to them for that purpose, and to offer equal terms to all shippers. A railroad is an improved highway; the public are equally entitled to its use; it must provide equal accommodations for all upon the same terms. The fact that one shipper may be provided with vehicles of his own, entitles him to no advantage over his competitor not so provided.

It may be claimed that if a railroad company permit all shippers indifferently, and upon equal terms to provide cars suitable for their business and to use them exclusively

no discrimination is made. This may be theoretically true, but is not so in application to the actual state of business of the country; for a very large portion of the customers have not a volume of business large enough to warrant equipping themselves with cars, and might be put at a ruinous disadvantage in the attempt to compete with more extensive establishments. Aside from this however, a shipper is not bound to provide a car; the duty of providing suitable facilities for its customers rests upon the railroad company, and if, instead of providing sufficient and suitable cars itself, this is done by certain of its customers, even for their own convenience, yet the cars thus provided are to be regarded as part of the equipment of the road. It being the duty of the railroad company to transport freight for all persons indifferently, and in the order in which its transportation is applied for, it cannot be permitted to suffer freight cars to be placed upon its track by any customer for his private use, except upon the condition that, if it does not provide other cars sufficient to transport the freight of other parties in the order that application is made, they may be used for that purpose. Were this not so, a mode of discrimination, fatal to all successful competition by small establishments and operators with large and more opulent ones, could be successfully adopted and practiced at the will of the railroad company and the favorite shipper.

The advantages, if any, to the carrier, presented by the tank car method of transporting oil, over that by barrels in box cars in carload lots, are not sufficient to justify any substantial difference in the rate of freight for oil transported in that way; but if there were any such advantages, as it is the duty of the carrier to furnish proper vehicles for transporting it, if it failed in this duty it could not in justice avail itself of its own neglect as a ground of discrimination. It must either provide tank



THE WITTE GAS ENGINE.

cars for all of its customers alike, or give such rates of freight in barrel packages, by the carload, as will place its customers using that method on an equal footing with its customers adopting the other method.

The railroad companies are not obliged to pay mileage for the use of private cars. As proof, we cite case of the *Burton Stock Car Company vs. C. B. & Q. R. R. Co.* et al., before the Interstate Commission, July, 1887. This private car company was the owner of a patent stock car designed for the transportation of cattle and other live stock in a less cruel way and with less loss by shrinkage than the use of railroad stock cars. It was claimed that it was customary for railroad companies to receive each other's cars, as they find convenient in their business, and pay a uniform mileage rate of three-quarter cent per mile for the use thereof, but in the case of complainants' cars, they refuse to pay a like rate, therefore, claim discrimination.

The U. P. Ry. Co. was a defendant in this case and answered among other things "that it was not under any legal obligations, either at common law or statute, to receive and transport over its road the trains, cars and vehicles of private parties and corporations not operating railroads and not exchanging passenger, freight or other cars as common carriers." The L. S. & M. S. Ry. Co., also a defendant in this case, answered among other things and "denied that it was under any obligations whatever to employ, receive, transport or haul said petitioners' cars and pay said complainants compensation or mileage therefor; that it owes complainant no duty or obligation to use or employ its cars; that complainant is not a shipper of live stock, and merely the owner of certain cars which it seeks to compel defendant to hire and use in place of suitable and proper cars which defendant now owns, and claims the right to select its own

agencies, means, and equipment for transacting its own business."

The commission held: "As complainant is not a carrier, and such an arrangement with it would not be reciprocal, but one-sided, it is not unjust discrimination on their part to refuse to pay mileage."

Summarizing all that has been said, my honest conviction is that the private car evil admits of but one remedy, and that is simply to discontinue paying mileage after due notice, and buy or rent such of these private cars as the commercial interests of the country require.

THE WITTE GAS ENGINE.

The greatly increased demand for gas and gasoline engines in country grain elevators has prompted many manufacturers to bring out new engines of this type and several goods have been placed on the market during the past year. One of the latest that has come to our notice is the Witte Gas Engine made by the Witte Iron Works Company of Kansas City, Mo.

This engine, as is shown by illustration, is similar to all late gas and gasoline engines. It is adapted to the use of either natural gas or ordinary illuminating gas, or any inflammable gas made from crude petroleum, benzine, naphtha, or gasoline, the latter being the one most commonly used for the purpose. When gasoline or other similar inflammable product is used, the main supply tank is placed below the level of the engine cylinder

and outside the building, to comply with the rules of the insurance companies. As may be seen by the cut the engine has two flywheels, distributing the wear on both crank shaft bearings alike. It draws gas and gasoline direct from the mains or tank, draws it in and compresses it during one revolution and explodes and exhausts burnt gas during the next. It differs very materially from any other on the governor, wherein a pair of ordinary fly weights change two steel jaw clutches, which are so set as to vary the quantity of gas or gasoline to just the amount required to do the work at the moment.

The governor is extremely simple, and is somewhat similar in construction to that of a high speed steam engine. It regulates so closely that, it is said, when running electric light plants (for which the engine is much used), there is no perceptible variation in the lights, even when the engine is belted direct to the dynamo without intermediate shafting. An exhaust muffler makes the engine practically noiseless.

Its construction is very simple and the only parts running at any speed at all are the flywheels, piston and crank. The other parts, such as valves, of which there are only two, and governor run only one-half the speed of the engine proper, and therefore this engine, by speeding to 300 revolutions or any other high speed, will not cause unnecessary wear.

Its charge is ignited by means of red hot one-eighth inch gas pipe at an expense of 5 cents per day, and the engine itself is guaranteed not to cost over 1 cent an hour per horse power. A full guarantee goes with every engine covering everything buyer may properly ask. The makers have lately sold quite a large number to be used in printing offices and country grain elevators where intermittent power is of great advantage. It saves an engineer's salary and is ready to start at any and all times. All parts about the engine are made in duplicate so that one can replace any part which becomes worn or broken.

Take your pen and sign "A Protest, A Petition."

No flaxseed was imported in July, against 23,130 bushels in the preceding July. For the seven months ending with July we imported 46,794 bushels, valued at \$55,459, against 548,540 bushels, valued at \$640,170, for the corresponding period of 1891. We exported in July 407,745 bushels of flaxseed, 6,333 pounds of timothy, 156,660 of cotton and none of clover seed, against 162,927 bushels of flaxseed, 183,474 pounds of timothy, 29,181 of cotton and 24,187 of clover seed. During the seven months ending with July we exported 1,004,464 bushels of flaxseed, 6,607,416 pounds of timothy, 6,830,782 pounds of cotton and 5,910,285 pounds of clover seed; compared with 237,308 bushels of flaxseed, 4,475,270 pounds of timothy, 6,918,245 pounds of cotton and 10,120,409 pounds of clover seed.

COMMUNICATED

[We invite correspondence from every one in any way interested in the grain trade, on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

ASSISTS US.

Editor American Elevator and Grain Trade:—We inclose our protest against unreasonable delays in transit of grain and trust your efforts may prove of some avail.

Yours truly, B. B. CONNOR & Co.
Louisville, Ky.

INCENDIARY FIRE.

Editor American Elevator and Grain Trade:—On Monday, September 5, our nice elevator and feed mill in South Hutchinson, Kan., was entirely destroyed by fire, together with a large amount of grain. The loss was about \$9,000, and the insurance \$6,500. We expect to rebuild at once. The fire is supposed to have been the work of tramps.

Yours respectfully, W. L. WOODNUTT & Co.
Hutchinson, Kan.

LOSS BY DELAY AND DEPRECIATION IN VALUE.

Editor American Elevator and Grain Trade:—We inclose you "A Protest, a Petition" signed as you request.

We have suffered great loss in delay of grain this season in transit on account of time of delivery expiring while in transit and also on account of damage to the grain from being so long in transit. For instance, we sold wheat for July delivery, grain to be delivered in three to five days at Toledo to grade No. 2, but taking fifteen to twenty days and grading No. 3 to rejected, causing a loss to us of 3 to 9 cents a bushel. Something should be done.

Yours, BROWN & Co.
Lovington, Ill.

MOVED CORN THREE MILES A DAY.

Editor American Elevator and Grain Trade:—Inclosed find "A Protest, a Petition" with name and address.

Why should a railroad company not pay claim referred to promptly? December 5, 1891, I loaded a car of new yellow corn to be graded and sold at Chicago. January 25, 1892, the railroad company located the same for inspection—fifty days going only one hundred and fifty miles on same line of railroad. It is needless to name the loss, any schoolboy can determine that by daily market reports. I hope "A Protest, a Petition" will have its influence.

Yours truly, W. S. STURGEON.
Heyworth, Ill.

A GOOD YIELD.

Editor American Elevator and Grain Trade:—The prospects for yield in this immediate vicinity are good, and I expect that this point will handle fully as much if not more grain than last season. The weather is fine for harvesting, which will in a few days (August 18) become general throughout this entire country, and it will be a matter of but few days until the new crop will commence to be marketed. In renewing my subscription to your valuable journal I must say that I have been enabled through your medium to keep fully abreast of the times on matters of vital importance to individuals in this line of business. Inclosed please find \$1. Remaining,

Yours truly, W. F. CHALENOR.
Palouse, Wash.

COMPLETED AND BUILDING.

Editor American Elevator and Grain Trade:—The elevator at Atlantic, Neb., is just a plain house 26x34 feet on the ground, 22-foot post, 16-foot cupola, roof one-half pitch, with three bins on a side, 8x8 feet, which fill right to the edge of upper side of roof. Three bins hopped in the center, 8x10 feet fill up eight feet of the cupola; and three bins are over the driveway, one 8x10, one 10x10 and one 8x10 feet. These fill up full like the elevator proper.

The dump pits are fourteen feet deep, the fan pit twelve feet deep, and the boot goes down sixteen feet below the floor. The two stands of elevators have buck-

ets 6x9 inches. We use an E. H. Pease Horse Power and a Wells Fan. This elevator has been completed and we have commenced the building of another elevator at Venango, Neb.

Yours, etc., H. O. BARBER.
Holdrege, Neb.

HAS HONORABLE INTENTIONS.

Editor American Elevator and Grain Trade:—I have seen a copy of the AMERICAN ELEVATOR AND GRAIN TRADE in which you say "Ellis E. Beebe, commission grain dealer at Duluth, Minn., has quit his business, leaving a number of creditors and customers in the lurch."

I wish to say now that if all my customers are ready and willing to settle with me, I will have no trouble in settling anything I owe to them. The trouble at Duluth was because of a good many of my customers "laying down" on me, to such an extent that I had to close my office there and get out and go to work. I told them at the time how things stood and that as soon as I could earn the money I would see that every man I owed a cent to would be paid. What more can I do? I could give you the names of more than one "good, responsible man" in Duluth and West Superior, who, if they would settle with me what they owe me, would enable me to settle with all my old customers there and have something snug left besides.

In regard to leaving creditors there, I have not left any debts but what I am trying to pay as fast as possible. I have not left over \$75 altogether due to different creditors.

Yours truly, ELLIS E. BEEBE.
Springfield, Ill.

A POINT ABOUT TRACK SCALES.

Editor American Elevator and Grain Trade:—If any of your readers have track scales of 60,000 pounds' capacity on the beam and an extra weight of 10,000 pounds I would advise them to have done with the 10,000-pound weight at once. It is a snare.

We had two scales fixed in this way and we found these 10,000-pound weights to be dangerous things to handle. Why? Well, because a difference of 10,000 pounds gross between two cars of grain nowadays is not at all remarkable. Your weighman may hang on a 10,000-pound weight for one car and forget to take it off when he weighs the next one if the next weight happens to be a gross, which often happens.

Get a 40,000 or 50,000-pound extra weight and he cannot use it without "making a note on't." The 10,000-pound weight is liable to work like this: Here is a car that weighs 63,300 pounds. He has to use the 10,000-pound weight and makes the figures on the beam read 53,000. This car is shoved into elevator and on comes another. The weighman has forgotten about the 10,000-weight because he does not use it but now and then. So he weighs it with the 10,000 pound weight on. It weighs 54,000 pounds, which is an ordinary gross weight and down it goes. Now if the extra weight is of nearly the same capacity as the beam such a thing could not happen.

Yours, D. J. A.

BISULPHIDE OF CARBON AND ITS USES.

Editor American Elevator and Grain Trade:—I noticed the article in the AMERICAN ELEVATOR AND GRAIN TRADE about the Texas man and his box with a bottle of bisulphide of carbon in his grain bins. It is a remarkable fact that the great success with bisulphide of carbon in killing rats in Paris, France, was what led to its extensive use in the West for killing prairie dogs. I am positive its great value for killing rats is not at all appreciated in this country. In its use, however, for killing rats it must be remembered that they are made to live in close places and the foulest air in which any animal can live, and any one who tries to dispose of them with it must persist.

Three years ago my barn was overrun with them. The first treatment seemed a failure, for, though appearing somewhat dazed, they seemed as plenty as ever. If it would not kill them I, of all men, wanted to know it, and I gave them three doses more within ten days, and they gave up and I have not seen a rat about the place since. The place must have a bad reputation in the rat kingdom. The best way to treat them is to saturate cotton waste with bisulphide of carbon, push it into their earth holes and cover the holes. If they dig the cotton out give them some more. Where they cannot be got at under buildings only a foot or two above the ground a modification of the Texas man's plan might serve to kill

them, as the vapor is heavy and in such a place would ultimately travel to the bottom of their holes. There would be no danger of fire in such use. If there were no openings the vapor would travel through to fire at the same or at a lower level.

Referring to grain, some write me that on finding a car of weevily wheat consigned to them they just treat the grain in the car before emptying. The best way to do this is to pour it right into the grain in different places.

Very truly yours, EDWARD R. TAYLOR.
Cleveland, O.

NEW ELEVATOR.

Editor American Elevator and Grain Trade:—Our new elevator is merely an addition to our mill building with a capacity of 14,000 bushels of grain and two carloads of flour. We use the basement for wheat, the bins extending out and forming sinks for wagon dump. On the first floor we have a flour bin, scales, office and wagon dumps. A Barnard & Leas Separator cleans all the grain before it is deposited in the bins.

The mill building with elevator addition is 40x60 feet, three stories and basement high. A Buckeye Automatic Cut-Off Engine furnishes the power for driving. Inclosed please find \$2.50 for which send us the AMERICAN ELEVATOR AND GRAIN TRADE and the American Miller for one year.

Yours truly, JOHNSTON & LASH.
Vermont, Ill.

ADOPTED PLAN FOR PROVING RECORD OF WEIGHTS.

Editor American Elevator and Grain Trade:—Among other improvements which we have been making in our elevators "A" and "B" is the changing of our scales to the Demuth Check Beam or double entry system.

We have been convinced for a long time that some plan must be adopted for obtaining a proved record of the weights. We knew every time that our scales were correct because we employed an expert to keep them in order. After canvassing the field thoroughly and investigating the merits of the different devices for obtaining correct records we decided to adopt the Demuth Check Beam system, which, in our opinion, is perfect; and to those of your readers who are buying scales or building elevators we would say this improvement is well worth the cost.

Yours truly, C., H. & D. R. R. ELEVATOR CO.,
Toledo, O. T. E. Ferguson, Secretary.

We cordially endorse all that Mr. Ferguson has said concerning the Demuth Check Beam. It is undoubtedly the best device for proving the correctness of weights that has been invented. No grain elevator can afford to dispense with them. They have been tested in Toledo to the satisfaction of all our elevator managers.

Respectfully, DENISON B. SMITH,
Secretary Toledo Produce Exchange.
GEO. W. LYNN,
Chief Grain Inspector, Toledo, O.

SIGN THE PROTEST.

Editor American Elevator and Grain Trade:—I am certain you are doing good work for the grain shippers in calling the attention of traffic managers to unreasonable delays in transit. And with all the shippers at your back you can bring the railroads to time.

Every one ought to put his name to "A Protest, A Petition" for the good of the cause, and he who does not neglects his plain duty. Delay is dangerous. Let us all sign the protest—at once. In the next issue I hope to see a good list of names published to show that the grain men are looking to the best interests of their business and to show the railroads that a demand exists for better service. Sign the protest.

There is no doubt in my mind but that the united protest of the shippers can influence the railroads to give us a square deal. The railroad business is something like politics; that is, the bosses try to run things to suit the masses. A great number of grain shippers would be respectfully listened to and an effort made to satisfy their demands. But when one or two shippers make a "kick" the railroad officials simply file it and pursue the even tenor of their way. Sign the protest.

In the grain trade prices are seldom the same two days in succession and most deals are made by telegraph. In other branches of commerce prices do not vary materially and sales and purchases are effected by mail. The grain trade should therefore be given superior facilities and

rapid transit, especially as the grain may become damaged in the cars. Therefore, sign the protest.

Those who do not sign "A Protest, A Petition" do injustice not only to themselves but also all their fellow shippers.

Yours truly,

S. I. G. N.

KANSAS CITY INSPECTION.

Editor American Elevator and Grain Trade:—I was very much surprised to see in the last issue of your AMERICAN ELEVATOR AND GRAIN TRADE a copy of the Kansas City Journal's fake on the opinion of the Attorney General of Kansas.

Our kind neighbors have not (nor do I think they ever will) encroached on our territory, for our inspectors are very careful and are giving excellent satisfaction.

New rules were established August 23 for grading grain in Kansas the coming year.

We have lately established a bureau at Coffeyville for the benefit of the Southern trade.

The wheat crop of Kansas is immense and the quality the finest. Our receipts at this market have been over 1,000 cars some days. All of the inhabitants of the United States could not lift the wheat crop of Kansas, for we could give every man, woman and child a bushel of wheat and then have more than enough for seed. How is that for a "calamity" state? In closing, I remain

Respectfully,

W. H. HASKELL,
Kansas State Grain Inspector.

RICE IN LOUISIANA.

Editor American Elevator and Grain Trade:—Your edition of August 15 contains an article headed "The Great Rice Market" which we have read with much interest. At the time it was written, the trade was running on last year's crop, no new rice having arrived, and the stock was about 30,000 bags, but since that time all but about 1,000 bags of the old stock has been moved as well as the greater part of the arrivals on this season's crop.

Constant rains to within a few days ago have greatly retarded the harvesting of rice, and receipts have been fully 50 per cent. less than was expected by this time. Now that favorable weather prevails, planters are busy securing their crops in fine condition. The largest acreage ever known has been planted this year, but there are still thousands of acres of good rice land vacant.

The season up to date has been anything but a satisfactory one to the planter on account of the bad weather which has prevailed and the low market prices obtained for his rice. From the very beginning up to date bad weather has materially interfered with the harvesting in anything like good shape. It is only from a few certain localities that fancy rice is arriving, and while that grade brought \$3.60 to \$3.75 per barrel at the opening of the season, it is hard now to obtain \$3 to \$3.10 on our market.

Because of the bad weather and low prices a majority of the planters prefer to let their crops remain in shocks or stack until they can ship under more favorable conditions, which accounts for only 121,140 sacks being shipped this year to date, against 145,051 at corresponding time last year.

The shipments this year to date have come from points along the Mississippi River, Bayou Lafourche and Bayou Teche, leaving what is termed Calcasieu and over the lake districts still to be heard from. The harvesting of Calcasieu Rice, which comprises the parishes of Vermilion, Acadia, St. Landry, Calcasieu and Cameron is progressing at present and undoubtedly within the next ten days shipments from there will be arriving here.

Calcasieu forms a large proportion of the crop. The late reports from this section state that some unknown insect is causing considerable destruction by having kept the heads of the stalk from filling up. One reliable planter of 1,800 acres stated to us that upon examination he found to all appearances that the heads were all well filled up and promising, but upon closer examination he found some of the stalks effected by some insect and the heads nothing but hulls. He reduces his estimate of his crop 25 per cent. therefrom. We also have reliable information from other planters to the same effect. All rice which has arrived in anything like a merchantable condition has been taken by buyers immediately upon arrival, while that arriving in a damp and heating condi-

tion was either sold on the best bid or milled into clean rice, the condition of same not allowing it to be held for any time. The rice industry in the past few years has developed wonderfully, especially in the Calcasieu district, but as yet Louisiana and the other states in which rice is produced has not been able to satisfy the home demand for that product. The producing points along the Mississippi River, Bayou Lafourche and Bayou Teche are settled and controlled by native Louisianans, while that in the Calcasieu district is cultivated by men who have within the past few years come from all over the Union, and they appear to be satisfied in every particular with their new homes and are doing well.

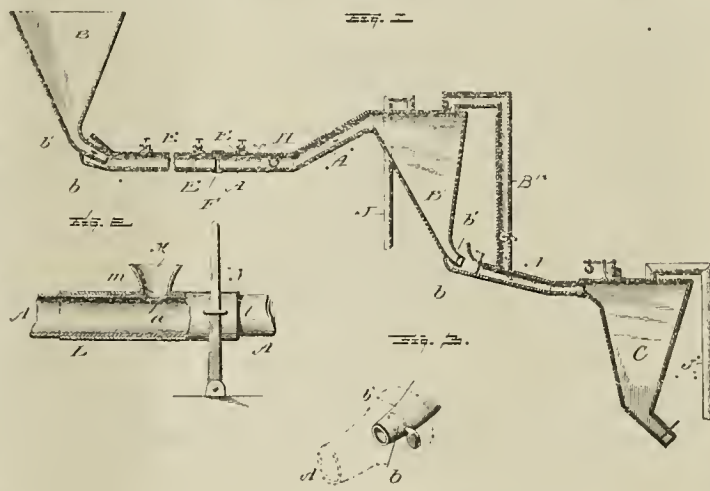
Very respectfully, GEO. E. SEARS & SON.
New Orleans, La.

APPARATUS FOR ELEVATING AND MOVING GRAIN.

A patent has been granted Daniel B. Taylor of St. Louis, Mo., on the apparatus illustrated herewith for elevating and moving grain.

This invention relates to certain new and useful improvements in devices for moving grain and other like materials, wherein a current of air is employed for a means of moving or elevating the grain, and it has for its objects, among others, to provide an improved, simple and cheap apparatus of this class and an improved process for conveying the material. The novelty in the present instance resides in the novel steps of the process, as well as in the peculiar combinations, arrangement and adaptation of parts.

The invention is clearly illustrated in the accompany-



APPARATUS FOR ELEVATING AND MOVING GRAIN.

ing drawings, in which Fig. 1 is a vertical central section through the apparatus. Fig. 2 is a view on an enlarged scale, showing means for introducing the grain into the conveyor tube at any point of its length. Fig. 3 is a detail of the inlet passage and valve. Like letters of reference indicate like parts in all the views where they occur. Some of the parts employed are or may be of any of the well known forms, and hence they have not been shown in detail.

Referring to the details of the drawings by letter, A designates the conveyor tube, extending between the points B and C. B is the receiving hopper or bin, containing the grain or other material which is to be conveyed through the tube to the discharge receptacle or chamber C. The bin B has an opening in its bottom, which is designed to be closed by a suitable valve b and this opening is of less area than that of the tube through which the grain is to be conveyed and into which it communicates. The bin preferably has an elongated neck b', extending within the tube, as shown in Fig. 1. This opening is made smaller than the tube, so that the amount of material passing there through into the tube at no time fills the tube, so that there is sufficient space for the passage of the air along with the grain or other material. In order to force the material through the tube the air is exhausted from the receptacle C, thereby causing the air to rush through the tube A, carrying with it the grain and depositing it in the receptacle C, and as the air is exhausted in front of or in advance of the grain, there being no resistance to cause friction, the grain will not be injured in its passage from the one place to the other.

In the transportation of grain or seeds that would not feed readily the inventor proposes to use a windwheel at the opening in the neck of the bin B, with a screw extending into the bin and into the bulk of the grain, and

the force of the air passing into the pipe will revolve the screw and force the grain or seeds out and into the tube A. It is, in fact, a screw force feed.

At intervals along the tube A are arranged openings E, closed by valves, which are to be used in case of stoppage in the tube. By opening them to allow the air to escape it can be readily determined between which two of said openings the stoppage occurs. F designates a joint in the conveyor tube, where the same may be opened to receive grain. This may be arranged at any suitable point in the tube. A similar opening H may be provided for the purpose of examining the tube at any time or for admitting grain. J designates the attachments of the air pumps for exhausting the air from the receptacle.

In the arrangement of parts for conveying the material over hills or other elevations or obstructions, where extra power is necessary and where extra pumps may be used, so that the power can all be concentrated at any given point to overcome an elevation, an auxiliary receiver B' is employed, with its attachment J to a pump, and an auxiliary tube B'X, having tight connections with the auxiliary receiver and with the conveyor tube and provided with a valve, as seen in Fig. 1.

In Fig. 2 is shown a means whereby grain may be introduced into the conveyor tube at any desired point of its length. An aperture a is provided in the tube at the point at which it is proposed to admit the grain. A sleeve L is placed upon the pipe at this point, said sleeve being provided with an opening m, corresponding in size with the opening in the pipe A, and with a hopper M for the admission of the grain. The said sleeve L is adapted to be readily moved upon the pipe A, so as to cause the opening in the sleeve to register with the opening in the pipe or to close said opening, as may be desired.

TORONTO WEIGHTS AND "CAR-LOADS."

Local grain men have long been subject to annoyance and loss through the want of a proper system of weighing grain in Toronto. Frequently in the past grain dealers have been bothered by disputes as to the quantity of grain shipped, arising over discrepancies between the amount stated in the certificate given at the point of shipment and that of the weighers here. To overcome this a committee of the Board of Trade proposes to arrange for a system of impartial weighing, which will be as satisfactory to the seller as to the buyer. It is thought the railways would undertake the management of a system of weighing for a small charge, giving an impartial service in this respect that would amply compensate for the outlay. But whatever is done in this connection the grain men want matters arranged so that when a certificate is given it will be indisputable.

When the Board of Trade committee is engaged in this matter some effort should be made to settle definitely the meaning of a "car lot." This ambiguous term, if it is still to be used, and it seems to be the most convenient, should be understood to represent a standard quantity of grain. It has been frequently complained that when a dealer buys a few cars of grain for forward delivery, the amount contained in a car depends upon the state of the market. If the price is advancing the car is short, and if the market is declining he is apt to get all the car can hold. Grain dealers want to get this matter arranged, so that when they buy grain they will know the exact amount of their purchase.—Globe, Toronto, Ont.

Doctors say brewery grains must be fed to cows within thirty-six hours to get pure and wholesome milk. After thirty-six hours the brewery grains become sour and unfit for cattle to eat. If dried immediately after production in the brewery the grains can be fed at any time with perfect safety.

Chief Inspector Foering of Philadelphia has been in Europe, and says: "The foreigners have been made sore on American corn, by so many cargoes arriving there out of condition. I saw some corn there that arrived black as a man's hat. Then the people abroad who are engaged in handling actual grain have very severe losses. They were hurt chiefly, of course, on wheat, but they were also hurt on corn. I was told while over there that a good many in the trade had lost half of their working capital in last year's disastrous bull campaign."

A PROTEST, A PETITION.

To the Traffic Managers of Railroad Companies:

We, the undersigned grain dealers, having been caused much trouble by unreasonable delay of grain in transit and also much loss by enforced idleness of capital invested and by depreciation in value of grain during delay, do hereby protest against such unreasonable delay and petition you to provide facilities sufficient to enable you to promptly transport grain at all times.

We also protest against the one sided and therefore unfair charge for delay, and petition you to allow the delay of grain in transit to be governed by the same rules as govern the delay of cars on the line where the grain is delayed.

Name.....

Address.....

Name.....

Address.....

Name.....

Address.....

We have received copies of the above signed by the following firms:

Gregg Bros.' Grain Company, St. Joseph, Mo.
F. H. Deane & Co., Richmond, Va.
W. S. Sturgeon, Heyworth, Ill.
Downing & Blaesser, Hawarden, Ia.
B. B. Connor & Co., Louisville, Ky.
J. Kremer & Co., Arcola, Ill.
Hunt & Booth, San Antonio, Tex.
Brown & Co., Lovington, Ill.
I. W. Sawin & Co., Loxa, Ill.
J. H. Wilkes & Co., Nashville, Tenn.
V. E. Chamberlin, Powell, Neb.
Geo. W. Eckert, Allentown, Pa.
Z. H. Travis, Reese's, O.
C. H. McCoy, Lovington, Ill.
W. Pickens, Daykin, Neb.
Vannah, Chute & Co., Winslow's Mills, Me.
C. H. Howard, Allentown, Pa.
Kremer & Winkler, Arcola, Ill.
W. D. Bettis, agent for Hunt & Booth, Orange, Tex.
Thomas Bros., Sheffield, Ia.
Vannerson & Co., Augusta, Ga.
W. H. Randerson, Winnebago, Ill.
N. A. Duff & Co., Syracuse, Neb.
Dawson, Blackman & Co., Cincinnati, O.
C. D. Sanborn, Cushing, Ia.
Hunt & Booth, Kansas City, Mo.
Haworth & Spang, Georgetown, Ill.
R. B. Delp & Co., Allentown, Pa.
N. F. Parsons, Winnebago, Ill.
E. D. Vorhes, Cushing, Ia.
Warner & Everett, Falconer, N. Y.
W. L. Sanborn, Merville, Ia.
I. W. Sawin & Co., Doran, Ill.
Norton & Son, Tallula, Ill.

Although the great majority of grain shippers of the country are heartily in accord with the protest, they either fear the signing of it would injure their standing with carriers or require several serious delays and heavy losses to prompt them to do their duty to themselves and their fellow shippers. If the protest had 500 or 600 signers it would quickly receive that attention from carriers which it merits. Our readers are entirely too backward in this matter; we should have ten times the number of signers published herewith. We are working for the interests of the trade and we are not asking for much help from readers, but the move deserves much better support than it has received so far. Do not delay longer. Cut out the above protest and petition, sign it and mail it to MITCHELL BROS. CO., 182-186 Dearborn street, Chicago. Induce other dealers to sign. As soon as we have received a sufficient number of signatures a copy of the protest and petition, with a list of the signers, will be sent to the traffic manager of each road carrying grain.

One reason why there is such a rush of wheat to market every year from the machines is that so many farmers fail to provide good granaries. It is the exception, rather than the rule, for a farmer to have room enough to store all his crop, and if he must take his wheat directly from the machine, he has no time to reclean it.

Trade Notes.

A. H. Kirk, miller of Fergus Falls, Minn., has been granted a patent on a device to keep the sieves of a grain separator clean.

The Neracher & Hill Sprinkler Company has made Ernest Winsor, No. 85 Water street, Boston, its agent for the New England States.

The Heidenreich Company, elevator builders and architects of Chicago, report business better than ever before and confident of doing over \$1,000,000 worth of business this year.

S. Howes of Silver Creek, N. Y., writes us, "This has been an exceptionally busy year with the Eureka Works, and we are away behind on our orders and are obliged to work overtime."

J. A. Campbell & Son of Lincoln, Neb., designers and builders of grain elevators, write us they are repairing and enlarging a number of elevators at Indianola, Neb., and other points.

The Caldwell-Charter Engine Co. has been incorporated at Chicago, with \$100,000 capital stock. The incorporators are Henry W. Caldwell, Oliver N. Caldwell and James A. Charter.

Huntley, Cranson & Hammond of Silver Creek, N. Y., write us: "Business with us is booming. We are running our works until 9 P. M., and have more orders than we know what to do with."

N. P. Bowsher, the well-known manufacturer of Bowsher's Combination Feed Grinding Mill, of South Bend, Ind., has recently been granted another patent on his combination feed grinding mill.

Machinery such as roller mills, shafting, belting, grain conveyors, etc., taking class A rates in straight car loads may be shipped in mixed carloads to points in the territory of the Transcontinental Association at the same rates, the Board of Commissioners of the Western Traffic Association having recently so decided.

The Racine Hardware Manufacturing Company of Racine, Wis., manufacturers of Racine high-speed automatic engines, report present business good, with an excellent outlook for the fall trade. They have over eight hundred of their engines established throughout the country, and are daily making shipments to all parts of the globe.

The Robt. Aitchison Perforated Metal Co., Room 510, 265-269 Dearborn street, Chicago, perforated metals of all kinds for mining and milling machinery, are issuing to their patrons a very neat and unique circular, called "Chicago and the World's Fair, 1893." It is a condensed history of Chicago during the past decade, also an epitome of the World's Fair, with illustrations of the grounds, buildings, etc.

The Neracher-Hill Sprinkler Company of Columbus, Ga., and Warren, O., certainly deserve a medal for getting up the most unique thing in the line of self-advertising. They are sending out a 6½x11 inch pamphlet with brilliantly illuminated cover entitled "Tributes from the Country's Largest Manufacturers." The paper is superb, and there are thirty full page, exquisite half tone engravings of as many large manufacturing concerns who are using the automatic sprinkler, and on the page facing each engraving is a terse testimonial from the firm whose establishment is represented by the engraving. A sample of these expressions taken at random says: "If we had a hundred factories we would equip them all with your system."

Owing to the increased demand for their chain elevating and conveying machinery, as well as their detachable and special chains, the Jeffrey Mfg. Co. have found it necessary to carry a stock of chains, sprocket wheels, boots and other specialties in the East, and have therefore arranged for office and wareroom at 163 Washington street, New York City, which is located between Cortlandt and Liberty streets. They will occupy their new quarters September 1, and will be pleased to have their old friends, as well as all users of machinery in their line, call upon them at the above address. The works of the Jeffrey Mfg. Co. are located at Columbus, O., and consist of a plant of over five acres, most of which is covered by substantial buildings necessary for the manufacture of their machinery. They have now in course of erection a three story brick shop, 50x140, and an additional warehouse, 40x170. This is one of the best

equipped plants in the West for special machinery of their manufacture and an establishment of which the city of Columbus is proud. Catalogues of their manufacture can be had on application.

American tin is not only taking very good care of itself, but has become a troublesome competitor against the foreign article, as is seen by Merchant & Co.'s circular. "Gilbertson's Old Method" brand of roofing plates is no longer guaranteed by this firm, as experience has proven that the American plate of its own production is much better and heavier and more evenly coated plate than even the "Gilbertson's Old Method," which it is claimed, has been allowed to greatly deteriorate to meet the prices of the American product and to offset the increased duty. Nothing can seem more strange than the old importing house of Merchant & Co. repudiating its old standby through sheer necessity, and because it has something better made daily at its own works right here in Philadelphia.—*Real Estate Record, Philadelphia.*

Queries and Replies.

Questions and answers are inserted under this head free of charge and all are invited to avail themselves of this column.

No. 4. *Screening Wanted.*—Will some reader of the AMERICAN ELEVATOR AND GRAIN TRADE please furnish us the address of elevator men who have wheat, oats and barley screening to sell, as we wish to open correspondence with such.—OAK HALL ROLLER MILLS, Oak Hall Station, Pa.

DULUTH'S GRAIN TRADE.

During the crop year ending September 1 nearly 200 per cent. more grain was handled at Duluth than for any preceding year. According to the state inspector 52,115,270 bushels of wheat were received.

Prior to the past year, 1887 was the biggest year ever known, the receipts of wheat being 19,752,969 bushels, and the shipmen's 23,365,735 bushels. Reducing flour to wheat, at the rate of 4½ bushels to the barrel, would make the receipts for the crop year equivalent to 66,571,460 bushels wheat, and shipments equal to 64,376,244 bushels.

The receipts and shipments during the two past crop years were as follows:

	RECEIPTS.		SHIPMENTS.	
	1892.	1891.	1892.	1891.
Wheat.....	51,355,368	18,202,504	46,071,503	16,132,729
*Flour.....	4,281,136	2,323,227	4,087,643	2,859,149
Flaxseed.....	637,081	114,372	696,904	111,330
Corn.....	111,337	171,936	111,372	263,430
Barley.....	161,392	104,988	184,559	104,988
Rye.....	31,288	4,591	21,193
Oats.....	20,668	379,223	2,668	382,470

*Receipts and production.

In quality the crop averaged well and the inspectors say the dockage for dirt was less than ever before. According to the inspection department 85,490 cars of wheat and 1,767 cars of other grains were received, making a total of 87,257 cars.

EFFECT OF THE HATCH BILL.

An Eastern exchange, in reciting the effect of the Anti Option Bill, says: "It would restrict the home market for wheat or cotton, etc., to millers and exporters, and possibly to a few syndicates of elevator owners in some portions of the country."

"It would mean that the farmer or producer would have to 'carry' the surplus crop unless he let the miller, exporter or elevator owner have it on the buyer's own terms."

"Under existing conditions the so-called speculator is the principal factor in carrying over surplus crops, as well as in carrying the proportion of yields needed at home until wanted. He does not do this because he is a philanthropist, but because he expects to and generally does make money out of such transactions. Strange as it may seem, he does this to the producer's advantage."

"Because some alleged 'gambling' has fastened itself on to the great grain, cotton and provisions exchanges the poorly informed person classes all dealers as 'gamblers,' and wants the exchanges abolished. It might as well be proposed to abolish popular elections in the United States because people sometimes bet on results of elections."

INSPECTED RECEIPTS AT CHICAGO.

According to the report of Chief Grain Inspector P. Bird Price the grain received at Chicago during the month of August was graded as follows:

WINTER WHEAT.

Railroad.	White.			Turkish.			Red.			No Grade.
	2	3	4	1	2	3	1	2	3	
C., B. & Q.	1	10	5	121	1161	178	164	674	287	39
C., R. I. & P.	20	15	11	506	212	152	350	88	30	
C. & A.	2	27	5	3	229	147	111	1680	198	18
Illinois Central.	4	14	2	103	26	703	812	126	9	
Galena Div. N. W.	1	1	7	192	23	5	4	9	3	
Wis. Div. N. W.	1	4	5	19	5	115	705	201	8	
W. St. L. & P.	10	15	6	4	444	638	81	25		
C. & E. I.	4	553	120	42	16	14	3			
C., M. & St. P.	4	354	403	13	44	31	2			
Wisconsin Central.	5	2	1	1050	106	370	367	165	13	
C., St. P. & K. C.	2	6	3	60	74	302	784	135	12	
A., T. & S. Fe.										
Through & Spec.										
Total each grade	21	105	43	143	4231	1,204	2422	6022	1339	162
Total W. wheat.										15783

SPRING WHEAT.

Railroad.	White.			Mixed.		
	2	3	4	No Grade.	2	3
C., B. & Q.	58	227	90	9	10	100
C., R. I. & P.	25	22	3	1	35	
C. & A.						
Illinois Central.	7	2				
Galena Div. N. W.	24	136	38	12	1	4
Wis. Div. N. W.	1	3	7	2		
W. St. L. & P.	2	1				
C. & E. I.	1					
C., M. & St. P.	45	154	177	13		13
Wisconsin Central.	5	17	12	1	6	
C., St. P. & K. C.						
A., T. & S. Fe.						
Through & Special	103	2	7		96	
Total each grade	236	574	356	40	12	251
Total Spg. wheat.						1,494

CORN.

Railroad.	Yellow.		White.		2	3	4	No Grade.
	2	3	2	3				
C., B. & Q.	529	205	48	28	1,152	564	359	53
C., R. I. & P.	173	76	21	10	668	426	187	14
C. & A.	175	61	57	24	195	82	180	6
Illinois Cent.	818	111	283	54	352	109	231	39
Gal. Div. N. W.	160	112	6	15	290	397	307	30
Wis. Div. N. W.	2	2				2	4	
W. St. L. & P.	249	100	97	58	123	46	48	14
C. & E. I.	84	37	46	19	60	46	27	6
C., M. & St. P.	38	85	3	7	77	360	129	3
Wis. Central.								
C., St. P. & K. C.	22	29	5		69	178	116	29
A., T. & S. Fe.	79	63	7	3	100	95	58	29
Through & Spec.	4	14	2	2	8	37	192	10
Total each grd	2,333	895	575	220	3,094	2,342	1,838	233
Total corn.								11,530

OATS.

Railroad.	White.			White Clipped.	No Grade.
	2	3	2		
C., B. & Q.	206	727	226	214	15
C., R. I. & P.	9	664	41	128	13
C. & A.	45	216	62	54	9
Illinois Central.	192	556	385	176	15
Galena Div. N. W.	152	664	125	205	20
Wis. Div. N. W.	25	59	7	13	5
W. St. L. & P.	16	147	45	78	6
C. & E. I.	23	111	151	63	17
C., M. & St. P.	86	433	82	236	4
Wisconsin Central.	5	2			
C., St. P. & K. C.	27	99	30	38	4
A., T. & S. Fe.	29	119	71	18	1
Through & Special	23	127	40	25	6
Total each grade.	838	3,954	1,265	1,218	26
Total oats.					7,402

RYE.

Railroad.	1	2	3	No Grade.
C., B. & Q.	118	73	3	
C., R. I. & P.	3	61	21	1
C. & A.			6	
Illinois Central.	7	25		
Galena Div. N. W.	85	38		
Wisconsin Div. N. W.		7	1	
W. St. L. & P.	1	13	1	
C. & E. I.	11	12	3	
C., M. & St. P.	29	25		
Wisconsin Central.		2		
C., St. P. & K. C.	11	5	1	
A., T. & S. Fe.	10	12		
Through & Special	9	27		
Total each grade.	3	346	206	10
Total rye.				625

BARLEY.

Railroad.	Bay Brewing.	2	3	4	5	No Grade.	Total No. Cars by Each Road.
C., B. & Q.			11	3	1	1	7,683
C., R. I. & P.			2	9	3	1	4,002
C. & A.							3,597
Illinois Central.		9	25	12	1	1	5,243
Galena Div. N. W.	1	4	31	13	8	2	3,132
Wis. Div. N. W.			2	15	1	1	175
W. St. L. & P.							2,108
C. & E. I.							1,941
C., M. & St. P.	1	28	15				2,766
Wisconsin Central.							9
C., St. P. & K. C.	2	5	6	1			1,566
A., T. & S. Fe.		1					2,714
Through & Special	1	16	3	5			2,139
Total each grade.	1	17	121	76	20	6	37,075
Total barley.						241	

WHEAT RECEIPTS AT PRIMARY MARKETS.

The wheat receipts at primary markets during the ten weeks ending September 3 for the last three years were as follows:

	1892.	1891.	1890.
St. Louis.	10,759,000	9,572,000	4,890,000
Toledo.	10,875,000	11,683,000	3,186,000
Detroit.	2,523,000	3,032,000	1,732,000
Kansas City.	7,066,000	3,312,000	1,759,000
Cincinnati.	802,000	1,327,000	373,000
Winter wheat.	32,025,000	28,926,000	11,940,000
Chicago.	13,582,000	15,635,000	3,418,000
Milwaukee.	3,267,000	1,088,000	971,000
Minneapolis.	9,497,000	6,221,000	2,899,000
Duluth.	4,272,000	2,126,000	1,146,000
Spring wheat.	30,618,000	25,070,000	8,464,000
Winter wheat.	32,025,000	28,926,000	11,940,000
Total, 10 weeks.	62,643,000	53,996,000	20,404,000

RECEIPTS AND SHIPMENTS AT CHICAGO.

The following table, compiled by George F. Stone, secretary of the Board of Trade, shows the receipts and shipments at Chicago during August, 1892 and 1891, of seeds, hay and broom corn:

	Receipts.	Timothy lbs.	Clover, lbs.	Other grass seeds, lbs.	Flax-seed, bu.	Broom corn, lbs.	Hay, tons.
1892.	2,347,895	16,407	148,573	789,296	138,100	16,409	
1891.	2,197,979	178,748	484,010	332,871	459,955	13,696	
Shipm'ts.							
1892.	3,941,211	319,675	2,608,491	975,030	573,643	1,194	
1891.	1,783,081	182,072	2,215,847	371,367	858,156	1,157	

VISIBLE SUPPLY OF GRAIN.

The following table shows the visible supply of grain Saturday, September 10, 1892, as compiled by George F. Stone, secretary of the Chicago Board of Trade:

In Store at	Wheat, bu.	Corn, bu.	Oats, bu.	Rye, bu.	Barley, bu.
Albany.		39,000	27,000	5,000	
Baltimore.	2,142,000	27,000	121,000	47,000	
Boston.	95,000	35,000	77,000		13,000
Buffalo.	2,670,000	494,000	102,000	36,000	13,000
do afloat.					
Chicago.	6,745,000	5,238,000	2,117,000	211,000	59,000
do afloat.					
Cincinnati.	3,000	7,000		7,000	37,000
Detroit.	855,000	20,000	34,000	10,000	13,000
do afloat.					
Duluth.	1,424,000				
do afloat.					
Indianapolis.	620,000	29,000	80,000	9,000	
Kansas City.	774,000	71,000	98,000	18,000	
Milwaukee.	921,000	11,000	5,000	13,000	45,000
do afloat.					
Minneapolis.	3,205,000	15,000	8,000		5,000
Montreal.	380,000		215,000	2,000	69,000
New York.	4,851,000	633,000	829,000	5,000	21,000
do afloat.	315,000		123,000	9,000	
Oswego.					
Peoria.	66,000	52,000	188,000	8,000	
Philadelphia.	1,814,000	191,000	148,000		
St. Louis.	5,199,000	267,000	585,000	21,000	2,000
do afloat.	39,000				
Toledo.	2,541,000	134,000	106,000	148,000	
Toronto.	65,000		4,000		32,000
On Canals.	1,680,000	374,000	132,000		
On Lakes.	2,185,000	2,070,000	370,000	36,000	16,000
On Miss. River.	127,000	5,000	145,000		
Grand total.	38,716,000	9,722,000	5,414,000	583,000	325,000
Same date last year.	21,935,506	8,286,529	4,042,566	2,706,297	308,390

EXPORTS FROM ATLANTIC PORTS.

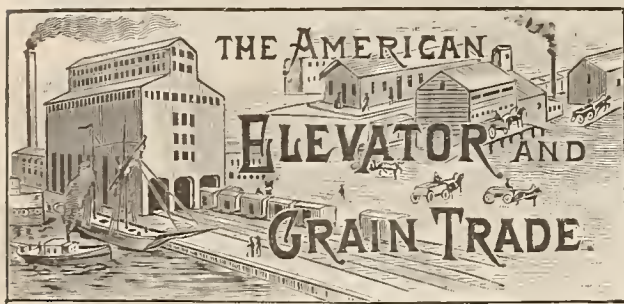
The exports of breadstuff, as compiled by George F. Stone, secretary of the Chicago Board of Trade, from Atlantic ports during the two weeks ending September 10, as compared with same weeks last year, have been as follows:

	For week ending Sept. 10.		For week ending Sept. 12.		For week ending Sept. 3.		For week ending Sept. 5.	
	1892.	1891.	1892.	1891.	1892.	1891.	1892.	1891.
Wheat, bu.	2,257,000	3,738,500	2,556,000	5,146,400				
Corn.	402,000	311,900	384,000	303,300				
Oats.	198,000	84,600	317,000	64,500				
Rye.	32,000	475,700	23,000	31,000				
Flour, bbls.	348,000	245,800	310,000	207,400				

RANGE OF PRICES AT CHICAGO.

The daily range of prices of grain for September delivery at Chicago since August 14 has been as follows:

	WHEAT.			CORN.			OATS.			RYE.		BARLEY.		FLAX SEED.	
AUGUST.	Low.	High.	Closing.	Low.	High.	Closing.	Low.	High.	Closing.	Low.	High.	Low.	High.	Low.	High.
15	77 1/2	78 1/2	77 1/2	52 1/2	53 1/2	52 1/2	33 1/2	34 1/2	33 1/2	62 1/2	63 1/2	60	61	103 1/2	104 1/2
16	77 1/2	77 1/2	77 1/2	52 1/2	52 1/2	52 1/2	33 1/2	34 1/2	33 1/2	62 1/2	63 1/2	60	61	103 1/2	104 1/2
17	76 1/2	77 1/2	76 1/2	51 1/2	52 1/2	51 1/2	32 1/2	33 1/2	32 1/2	61 1/2	62 1/2	59	60	102 1/2	103 1/2
18	76 1/2	77 1/2	77 1/2	51 1/2	52 1/2	52 1/2	32 1/2	33 1/2	33 1/2	61 1/2	62 1/2	59	60	102 1/2	



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A. J. MITCHELL, - - - Business Manager.

HARLEY B. MITCHELL, - - - Editor.

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., SEPTEMBER 15, 1892.

NEW YORK CANAL CENTENNIAL.

The business men of New York have at last arrived at the conclusion that there are several other ports on the Atlantic that can handle grain for export besides the metropolis, so propose to start a movement for the improvement of the Erie Canal by celebrating the centennial of the passage of the first act initiating the construction of the state canals.

The celebration will take the form of a convention for promoting these improvements. The contrast between New York's position in the Union a hundred years ago and its position now is notable. Then it was the fifth state in the Union in population, now it is the first. More notable still has been its advance in the domain of commerce and finance; an advance which is marked by the position of its chief city as the financial center of the United States. It is claimed, and rightly too, that this advance is due principally to the canals which in the early days of the country played an important part in the commerce of the country.

During the twenty years, 1837 to 1856, New York canals carried 50,326,487 tons, and during the twenty years ending with 1891 the total tonnage was 106,844,759 tons. It was not until within the last few years that the rail carriers were able to make any noticeable inroads on the shipments of grain from Buffalo by canal. The railroads have made a number of improvements and greatly reduced the cost of transporting grain to New York City, but the canal has been going the other way. No important improvements have been made for years, and its navigation has been impeded by shallow water and short locks. With ten feet of water and longer locks full loads could be taken, the trip made in less time, and new and larger boats put in the trade. Rates on grain to New York would then be lower than the railroads have yet seen fit to make them.

As far as New York and Buffalo are concerned it is a question of trade with them and unless the canal is improved other seaports will get more of the export grain trade than they have in

the past year or two. It is not doubted that the railroads would put rates up to twice what they are at present if it were not for the canal. They always advance them to 7 or 8 cents when the season of navigation closes, and when the canal is closed permanently they will advance rates for good.

The railroads of Buffalo cannot and do not care to hold all of the export trade, but they do want part of it at good rates. For this reason they have been making strenuous efforts to kill the canal. Western shippers have profited by the fight, but if the railroads win they will have to more than make up the loss to the rail carriers. It was the Erie Canal that first attracted grain shipments that way and their continuance is due to the canal competition. Montreal, Boston, Philadelphia, Baltimore and Gulf ports are all anxious to get more of the export trade, and if the canal is closed it will be an easy matter for them.

JURISDICTION OF STATE TRANSPORTATION BOARDS.

A new point regarding the jurisdiction of a state board of transportation has been raised by the Burlington Road in Nebraska. The point was raised in the case of B. W. Blair of Broken Bow who asked that the state board compel the railroad company to permit him to erect an elevator upon its right of way in that city.

Although the plaintiff was compelled to load grain direct from the wagons, he shipped about one-fifth of the 500 cars sent from that station the past year. It being clear that he was entitled to a site for an elevator the company dodged the question in its answer and tried to make the point that the board had no jurisdiction, as all the shipments made by the plaintiff were interstate shipments, and that he had not even asked for cars for shipments to Nebraska points.

Blair did not complain that he was not allowed to ship grain, in fact the complaint contains nothing that could be construed in this light.

The case has no bearing whatever on interstate commerce. It relates only to the grain trade of Broken Bow. The question is must the railroad company allow ample shipping facilities to be provided and the trade fostered or can it refuse, and thereby discourage the trade and permit grain to go to other stations. The non-jurisdiction plea is groundless and was made only to secure delay.

ONE RESULT OF FARMERS HOLDING WHEAT.

During the past thirty days we have received a number of specimens of insects infesting stored grain. The last is from a Wisconsin grain firm, which sent a bottle containing bugs and worms. The trouble from this source seems to be much greater than usual and it can be directly attributed to the "Hold your Wheat" circulars of last year. The farmers heeding the advice of the circulars stored their wheat in any and all kinds of places. Few of them had proper storage facilities but held it regardless.

The result is that their wheat has become badly infested with all species of weevils and moths. A weevil's happiest dream of Paradise is a dark, dirty, close bin full of wheat in an old barn, where the farmer cannot move it about. Whenever these insects find such a state of affairs they improve their opportunities. One pair can raise a family of 6,000 in a year. The grain dealers and millers have bought much of this grain and not discovered that it was infested with insects until after it had been in their bins for some time. In some cases it was placed in bins with other wheat and the whole lot became infested. Weevils usually remain four or five inches below the surface so dealers will not discover them when examining wheat on the farmer's wagon, unless they take sample from interior of load.

The insects received from Wisconsin were found in grain of last year's crop, stored in warehouse. The bug is a species of the snouted weevil, a full illustrated description of which was

published in our June issue, page 399. The worm is undoubtedly the larva of the weevil, although it seems longer than usual. The best remedy is bisulphide of carbon, which is advertised in the columns of this journal. It is recommended by entomologists and we have received commendatory letters from grain dealers and millers who have tried it.

WILL YOU PROTEST; WILL YOU PETITION?

Our request that grain shippers protest against the unreasonable delay of grain in transit and the one-sided demurrage charge and petition traffic managers to make a change has not met with the reception that the case merits. We are working in the interest of the grain trade and if every shipper who favors the changes asked for in the petition published in this issue would sign it, the protest and petition would have considerable influence.

It is not a question of "who has signed it," or how the traffic managers would receive such a petition, but whether or not shippers are content to suffer loss from delays and pay demurrage when carriers do not. The excuse that the petition would do no good is very flimsy. Anything that is worth having is worth striving for, and the stronger the demand for these changes the more likely are they to be made.

Do not try to excuse yourself with the childish "I would if others would," but promptly sign and forward to us. Do not let yourself think that a rush of business keeps you from signing it, for you can cut out, sign and mail the petition in two minutes. Do not wait until you have suffered new losses, for it may be too late to do any good. Sign now.

EXPORTS OF BREADSTUFFS.

The last report of the Bureau of Statistics shows that breadstuffs valued at \$19,036,710 were exported in August, against \$28,853,510 in the preceding August; \$33,304,110 in July and August, against \$45,232,801 worth in July and August, 1891, and \$166,239,917 in the eight months ending with August, against \$113,563,108 worth in the corresponding months of last year.

In August we exported 13,243,830 bushels wheat and 2,352,664 bushels corn, against 21,499,941 of wheat and 1,202,308 of corn in August, 1891.

For the two months ending with August the exports were 21,068,996 bushels of wheat, 4,565,188 of corn, 327,862 of oats, 310,291 of rye, 379,485 of barley, and 2,548,124 barrels of wheat flour, compared with 30,918,724 bushels of wheat, 4,258,426 of corn, 206,223 of oats, 1,108,399 of rye, 295,166 of barley, 1,682,180 barrels of wheat flour for the corresponding two months of 1891.

CENTRALIZATION OF THE ELEVATOR BUSINESS.

The plan of combining many elevators under the management of one company seems to have met with greater favor in the Northwest than in any other part of the country. There we find the largest companies and the most of them.

Kansas and Nebraska have some companies which control a number of houses, and some of the other states have firms operating a few houses, but in no part of the country has this plan reached the extensive practice and high state of perfection that we find in the Northwest. In this and recent issues we have published particulars regarding an unusual number of transfers of lines of elevators to companies that already controlled extensive lines, and of the organization of new companies for the purchase or erection of a line of elevators.

That the business can be conducted more successfully on this plan may be doubted by some, but not on good grounds. It is certain that any line of business can be conducted more economically on an extensive scale than on a small scale.

The companies operating a large number of elevators can buy supplies at lower figures, can get insurance cheaper, and borrow money at a lower rate of interest than the country elevator man who operates only one or two houses. The country elevator man cannot fill so large orders either, so the large company has an advantage there.

That the large companies will eventually drive the small dealers out of the business is not to be feared, but competition together with trade evils may lead them to join hands and act together in many things. This is not the purpose of the large companies nor the intention of their managers. More is to be gained by harmony than opposition and they know it.

CHANGE IN CHICAGO GRADES.

As proposed, the grade of No. 1 Northern spring wheat was established by the Illinois Railroad and Warehouse Commissioners at their meeting September 14 with grain and elevator men at Chicago. No one present opposed the making of a new grade, but opinions differed as to what varieties and what weight of wheat should constitute the grade. After a full discussion it was voted to make the grade as follows:

No. 1 Northern spring wheat must be sound and well cleaned, and must contain not less than 50 per cent. of the hard varieties of spring wheat.

The weight was left to the discretion of the grain inspectors. It is understood that the Chicago Board of Trade will make the new grade deliverable on contracts. The new grade, it is expected, will draw Minnesota wheat to Chicago. One reason for establishing the grade is that while the Chicago elevators contain No. 1 Northern it could not be inspected out as such, but only as No. 2 Spring.

At the same meeting it was decided that the "new" grades of corn should be abolished.

No action was taken on the proposition to omit the word "new" from certificates of out-inspection on all kinds of grain at the time it ceases to apply to track inspection, but it was proposed and will probably be favorably acted upon by the commission.

THE CROP REPORT CROAKERS.

A few croakers, principally in the Northwest, are beginning to look upon the monthly crop reports issued by the government as the worst imposition the public is suffering from, and for some time have been striving to convince the reading public that it is responsible for most everything deplorable that has occurred. It causes "dullness in trade," "dragging prices," and is "misleading, inaccurate and calculated to do more harm than good."

The speculators want the public to believe that they know all about the condition of the crops and that information from any other source is unreliable and not to be credited. They have induced several commercial papers of the Northwest to so believe and are now striving to make a veritable bugaboo of the reports in hope that a credulous public will petition for the discontinuance of the reports.

The monthly crop reports issued by the government are by far the most reliable and extensive reports published and the interests of the producer and the consumer demand that they be continued. Even the croakers study the reports and act upon their information showing that they are convinced that they are more reliable than their own exaggerated reports.

Regarding the unreliable information sent out by these croakers, the *Trade Bulletin* of Chicago says: "There is considerable news voluntarily furnished from the Northwest just now in regard to the damage to the wheat crop—much of the same tenor as that forwarded about this time last year—when they finally reported the largest crop on record. No one believes that the great Northwest will raise only one-half the wheat reported

one year ago, and the parties who forward such news do not believe it themselves."

They want the market to go their way and when the government report interferes with their plans they set up such a croaking that were they credited the believer could not help but think that the entire country had wandered into the Slough of Despond.

BUFFALO RECEIPTS.

Buffalo's grain receipts continue to increase, and the railroads still manage to get the lion's share of the shipments east bound from that point. Up to September 1, 73,305,000 bushels had been received, which exceeds by over 18,000,000 bushels the receipts during the corresponding period of any season except that of 1891, when 57,467,000 bushels were received. With all this increase in receipts, traffic on the Erie canal is declining.

Unless the state or national government soon comes to the rescue and improves the canal, so that canal boatmen can take full loads and make better time, the canal will be unable to cut any figure in the grain carrying trade. Then will the rail carriers have gained their long sought victory, but they will not be able to feast upon the purse of grain shippers undisturbed as they had expected. A new competitor is in the field, and is already diverting considerable grain to Philadelphia via Erie.

Improvements are being made at Erie and others are to follow, so that in the near future shippers may find this route the most advantageous. With two first-class lake and rail routes to the seaboard Western shippers are not likely to be called upon for exorbitant rates on grain from eastern lake ports to the seaboard. Such a division of the trade, however, will decrease the grain receipts of Buffalo and New York city, and increase the trade of Erie and Philadelphia. Then will Buffalo have elevators forced into unprofitable idleness for want of business, and the pool will not pay 20 per cent dividends on the first cost of old worn out houses to keep them idle.

COMMERCE OF THE GREAT LAKES.

Figures just at hand for the traffic on the Sault Ste. Marie Canal for the fiscal year ending June 30, 1892, show that it is larger than ever. A total of 11,557 vessels passed through the locks, or 2,016 more than last year, with a registered tonnage of 9,828,894, an increase of over two million tons. The actual freight tonnage was 10,107,613 tons, an increase of 1,768,622 tons. The average haul of the cargoes was about 820 miles, and the average ton-mile freight, 1.35 mills.

These figures are sufficiently interesting, not to say surprising; but the forthcoming report of the Bureau of Statistics, on the commerce of the great lakes, presents additional facts. The fleet navigating the lakes now consists of 2,125 vessels (not including small tugs and steam canal boats), with a tonnage of more than 870,000 tons, and a value of more than \$57,000,000. There are more than double the number of vessels engaged in the lake trade of the United States than there are engaged in the foreign trade, even taking in all the ports on the Atlantic, Pacific and Gulf coasts. The tonnage carried during the past year, if loaded into freight cars, would have covered 13,400 miles of track, and would have stretched from New York to Chicago and back nearly eight times. The basin area of the lakes, which is 270,000 square miles, embraces more than half the total fresh water area on the surface of the globe. Its total coast line is over 3,000 miles. The eight great states which border on the lakes have a population of over 26,000,000.

In the light of these facts it will be seen that government appropriations for this great artery of commerce have always been beggarly, even for needed improvements in the connecting links. The commerce of the lakes justifies the most liberal expenditures at the "Soo," the St. Clair Flats,

and wherever Nature has interposed obstacles. The growth of the Northwest emphasizes more and more the need of improving the great waterway of the lakes to keep pace with the demands of traffic.

GOOD ROADS.

No public movement of recent date is of so much importance to the grain trade and especially the country elevator man as that for the improvement of our public roads. Every spring and frequently at other times of the year country towns suffer from mud blockades; business is almost suspended.

Dealers receive no grain, often at times when a bulge in the market would bring much grain to market, but for the fact that the farmers cannot haul it. Too long have the roads of the country been left to the mercy of rainy weather and shiftless road supervisors, with the resulting mud. The grain trade suffers more from this source than any other, and dealers can well afford to take an active part in the fight for better roads.

With passable roads at all seasons the yearly receipts of grain at most country points would be greatly increased, for the farmer would try to take advantage of every rise in prices and often would sell grain he had not intended to sell. Farmers would not market their grain all at once, and the opportunities for the traveling scalper to secure the cream of the regular country dealer's business would be materially reduced. The cost of hauling to market would also be reduced and farmers would often see a profit in prices they could not now accept. Let our convicts be set to work and our roads improved.

BLOCKADE AT KANSAS CITY.

For a month the grain trade of Kansas City has been in a serious condition and it seems to be growing worse. The marketing of the immense crop of Kansas and the wheat held over has proved too much for the handling facilities at that point. The blockade became so great that three roads instructed their agents to bill no more wheat to Kansas City.

The trouble is that the grain trade of Kansas City has increased so much in the last two crops that it has outgrown the facilities for handling it. Some time ago rules were established by the railroads requiring the disposition of grain within forty-eight hours after arrival and some of the roads have reduced the time to twenty-four hours, still the blockade continues.

The railroad officials claim that the trouble is due to insufficient elevator capacity. Our correspondent, whose communication is published in this issue, holds the same opinion and gives some good reasons for so thinking.

On the other hand the dealers hold that the railroads are to blame in that they have not provided sufficient tracks, switch engines and cars to handle the increasing traffic. Some complain that cars have remained on side tracks for two weeks after they had been ordered transferred.

All are to blame, in a measure, and improvements can be made by each party concerned with advantage to all. Several of the roads are already enlarging their track room and others will follow. More cars should also be provided or shippers will be justified in refusing to pay demurrage. It is the blockades and poor service that prompts shippers to secure private cars, which carriers so obstinately oppose.

In the grain carrying trade of the lakes the vesselman stands the shortage, although he is not always to blame. It is the custom and all must abide by it. One steamer which has been carrying grain from Green Bay to Buffalo for some time has been short on most every cargo, and now it is found that the Green Bay elevator has 1,500 bushels of extra grain. The scales of all elevators should be frequently tested and improved methods of recording weights adopted. Then would the trouble from this source become less.

Grain Dealers' Associations.

ILLINOIS GRAIN MERCHANTS' INSURANCE AND PROTECTIVE SOCIETY.

President, F. M. PRATT, Decatur; *Secretary*, T. P. BAXTER, Taylorville; *Vice-President*, EDWIN BEGGS, Ashland; *Treasurer*, E. F. NORTON, Tallula.

GRAIN DEALERS' ASSOCIATION, OF OHIO.

President, E. W. SEEDS, Columbus, O.; *Vice-President*, Z. H. TRAVIS, Reese's; *Secretary*, J. W. McCORD, Columbus; *Treasurer*, GEO. T. CHAMBERLAIN, Columbus.

STATE GRAIN DEALERS' ASSOCIATION OF TEXAS.

President, S. C. McENNIS, Dallas; *Vice-President*, E. EARLY, Waco; *Treasurer*, J. P. HARRISON, Sherman; *Secretary*, G. D. HARRISON, McKinney. *Directors*, J. F. McENNIS, J. P. HARRISON, E. EARLY, S. E. McASHAN of Houston and C. F. GRIBBLE of Sherman.

NEBRASKA GRAIN DEALERS' ASSOCIATION.

President, C. H. FOWLER, Omaha; *Vice-President*, W. H. FURGESON, Hastings; *Treasurer*, N. A. DUFF, Syracuse; *Secretary*, F. C. SWARTZ, Omaha; *Directors*, C. H. FOWLER, W. H. FURGESON, N. A. DUFF, H. O. BARBER, F. L. HARRIS, G. W. WIRT, J. W. PERRY, J. A. CONNOR and F. C. SWARTZ.

GRAIN DEALERS' AND MILLERS' ASSOCIATION OF THE CUMBERLAND VALLEY.

President, S. C. WAGNER, Newville, Pa.; *Secretary*, JOHN A. MILLER, Oakville, Pa.; *Treasurer*, D. H. MILLER, Oakville, Pa.; *Executive Committee*, J. K. BEIDLER, Oakville, J. W. SHARPE, Newville; U. G. BARNITZ, Barnitz; H. K. MILLER, Huntsdale, and J. H. BRINKERHOFF of Walnut Bottom, Pa.

GRAIN SHIPPERS' ASSOCIATION OF NORTHWEST IOWA.

President, T. M. C. LOGAN, River Sioux; *Vice-President*, H. HANSEN, Odebolt; *Secretary and Treasurer*, F. D. BABCOCK, Ida Grove; *Assistant Secretary*, F. G. BUTLER, Schaller.

Executive Committee, E. A. ABBOTT, Des Moines; J. Y. CAMPFIELD, Sac City, and T. M. CATHCART, Kingsley.

EDITORIAL MENTION

If you desire to have us succeed in mitigating the evils of delays of transit, help us to secure signatures to the protest published in this issue.

A MEETING of grain dealers from southern Minnesota and northern Iowa was held at Winona, Minn., August 30, to consider grades for the crop just harvested.

COMPARATIVELY few country elevator men deal in hay, yet many of them could realize a handsome profit by buying, baling and shipping hay to central markets. If reports are true the European demand for hay will be greater than for years.

PHILADELPHIA railroads have adopted a new schedule of freight rates on grain and feed re-shipped from that city which will prove of advantage to the dealers of that city. The grain merchants of that city have determined to increase the city's grain trade and are going about it in the right way.

A TEXAS grain merchant has had a novel experience in Mexico. He shipped 50,000 bushels of corn to A. Cardenas, a grain speculator of the City of Mexico, who accepted the corn upon arrival, but refused to pay for it. The Texan went to Mexico, took charge of the corn and sold it again. This displeased Cardenas so he had the

grain merchant put in prison. It was three weeks before the United States Minister succeeded in getting him out.

IT SEEMS that competition in the Northwest has induced Minneapolis grain commission men to pay station agents for influencing trade. The majority did not look with favor upon this plan of getting business, so the Chamber of Commerce has adopted a rule prohibiting it and fixing a penalty for those caught at it.

A PAPER published at Lakefield, Minn., says, "The elevator will be open for business September 15. Shareholders will be allowed a better deal than outsiders." This is all right, but what a howl the farmers who did not get the "better deal" would raise if a private warehouseman should discriminate against any.

THE overproduction of cotton last year with the low prices was not entirely an evil, as it has resulted in a large increase in the rice acreage and good returns are expected. If grower's expectations are realized on this crop, a further increase will surely take place next year, and it may be that we will produce enough of this cereal to supply the home demand.

Do you dock wheat for dirt it contains? If so you need a copy of the "Wheat Dockage Tables" advertised in our list of "Valuable Books for Grain Dealers." By using the dockage table you can quickly ascertain the correct amount of dockage on any carload of wheat containing not less than 270 and not more than 1,100 bushels at $\frac{1}{2}$ to 2 pounds dockage per bushel.

THE Minneapolis Chamber of Commerce has voted to make the last purchaser of wheat the proper person to pay the original seller. The original seller it would seem, ought to have something to say in this matter, but of course, if he gets his pay promptly, he will raise no objection to the payer. The arrangement is likely to complicate trade, but a trial cannot do much harm.

WE have made arrangements to supply the trade with copies of the grain tables for reducing pounds to bushels, prepared for the Chicago Grain Inspection Department. The tables are the best arranged we have ever seen. Each book contains ten leaves and is indexed at margin. Each leaf is printed on one side only, so no time is lost in finding the exact number of bushels in a carload of corn, oats, rye or barley. No dealer can afford to be without them. The complete set can be obtained for \$2.50.

A NUMBER of Eastern states have appointed commissioners for the promotion of uniformity of legislation in the United States. The way some of the state laws conflict with those of other states is startling. Uniformity is needed in all lines, the grain trade just as much as any other. The multiplicity of laws and decisions is confusing, and one often breaks laws without knowing it. The legal bushels established by the different states vary enough to have been drawn by chance from a hat. Uniform inspection and warehouse laws would also simplify business.

ALL the public elevators at Duluth have been made private. About a year ago two of the public elevators were made private and regular under the Duluth Board of Trade rules. This has proved so satisfactory to the elevator companies that the rest of their elevators were made private on September 1. The only elevators remaining public at the head of Lake Superior are those of the Sawyer and the Great Northern systems. The Minnesota law requires that, grain placed in a public elevator must come out at exactly the same grade as when it went in,

and the warehouse man is not allowed to mix different grades or doctor the contents of his house. The private warehouse man may mix, clean, dry or doctor the grain in any way he chooses, but of course, will give out the grade of grain his certificates call for.

DELAWARE farmers raised a good crop of crimson clover seed this year, and, expecting a good demand, combined and fixed the price at \$6 per bushel. This induced dealers to import seed of this variety, and now the southeastern markets have a surplus. The effort to bull the market was a failure, just as the farmers' failure to bull the wheat market was last year. The farmer speculator is seldom a success.

A NUMBER of boys were recently caught stealing grain from cars at Indianapolis. The stealing has been going on for some time, many cars have been broken open and holes bored in the floors of others. Some of the grain was recovered by the carriers' detective, not by the shippers. When carriers take to making good to shippers the loss of grain in transit, shippers will stop demanding that loaded cars be well guarded when standing in freight yards.

MINNESOTA grades have been slightly amended to meet the requirements of the present wheat crop. Hereafter "hard, flinty wheat, containing no appreciable mixture of soft wheat, may be admitted to the grades of No. 2 Northern and No. 3 wheat, provided the test weight of the same is not more than one pound less than the minimum test weight required by the existing rules for said grades; and, provided further, that such wheat is in all other respects qualified for admission into said grades."

THAT the grain trade has long needed active working associations to bring about a discontinuation of the impositions heaped upon it by the rail carriers, and to secure needed legislation and changes in nonsensical warehouse and inspection laws has never been disputed, yet many dealers suffer from delays, shortages and from other causes without a murmur. When you suffer loss let us hear from you. Shippers would not tire so soon of kicking if they knew others were in the same boat. They would take courage and shout out against the common impositions.

OUR old friends, J. J. Blackman & Co., for 28 years at 37 Water street, are now located in new and enlarged offices at 95 Broad street, New York. They still continue to play their trump card, an exclusive commission business, and with an increase rather than a deterioration from past energies, solicit a continuance and hope for large additions to previous favors from Western shippers, with the assurance that every detail connected with interests confided to their care continues under the personal supervision of Mr. Blackman, who on September 1 entered upon his twenty ninth consecutive year in the flour, grain, feed, hay, corn goods and seed commission business in that market.

INCORRECT weights have again been causing trouble at Kansas City. When the weighing of grain at that point was placed in the hands of the Western Weighing Association it was thought that no further trouble would be experienced, but shortages were repeatedly reported and recently a conference was held with the result that an agreement was made which binds the merchants to recognize the certificates of the Western Weighing Association on in grain as official, and the association to accept the certificates issued by the Commercial Exchange on out grain as official. It would seem that the constant trouble regarding shortages would induce the trade to adopt more reliable methods of weighing and recording weights, and then compel carriers to make good shortages,

but it does not. With each large shortage, the loser frets and fumes but takes no action to remedy the evil and accepts it as inevitable.

That proposed \$20,000,000 pipe line from Buffalo to the Atlantic for conveying grain through pipes at the rate of twelve miles an hour has not been and never will be completed. Such a wild, chimerical scheme is not to be credited for an instant. With the expenditure of one-tenth the estimated cost the Erie canal can be so improved that grain can be carried to the coast at much less cost per bushel than by pipe line.

The available stocks of grain on the Atlantic and Pacific Coasts of the United States and Canada, as reported by *Bradstreet's*, were on August 27: 42,875,432 bushels of wheat, 8,780,329 bushels of corn, 7,267,947 bushels of oats, 470,036 bushels of rye and 589,731 bushels of barley, compared with 25,048 bushels of wheat, 6,668,307 bushels of corn, 4,275,270 bushels of oats, 2,570,644 bushels of rye and 138,811 bushels of barley on Sept. 1, 1891. On August 1 the available stocks included 31,310,827 bushels of wheat, 8,897,464 bushels of corn and 6,889,322 bushels of oats.

SINCE the Mexican import duty on corn was suspended shipments from this country have been very heavy, and petitions have been presented to President Diaz to have him restore the duties on corn immediately. He was shrewd enough to see that these petitions were prompted by a desire on the part of corn owners to secure better prices for their holdings, so not only refused to restore the duties but also gave it out that it was his intention to tax all grain held in store, and out of the market. Evidently Diaz is a friend to the people and not the Mexican grain speculators.

PHILADELPHIA'S grain trade continues to increase, and if the good work commenced by that city's merchants is kept up, the grain trade of the city will not only be revived but will exceed anything of former years. During the first eight months of 1892 the receipts included 7,110,000 bushels of wheat, 19,682,000 of corn and 3,414,000 of oats, against 3,817,000, 2,588,000 and 2,619,000 bushels respectively for the same months of 1891. The exports of grain amounted to 23,951,586 bushels, an increase of 19,550,000 bushels over the same period of last year, which is truly a very creditable showing.

TERMINAL elevator men still persist in docking receipts for future shrinkage, although they do not know how long it will remain in the house when it is received. If docked for shrinkage when given out the elevator man could tell nearer the amount of the actual shrinkage, for then he would know how long it had been in his possession. The practice of making country shippers bear the loss of all future shrinkage, real as well as imaginative is unjust. The imposition of this dockage upon them just because it is the custom or for the accommodation of a few speculators who deal in a small per cent. of the grain received is inexcusable. The first elevator that breaks away from this ancient custom will profit by a large increase in receipts.

TO AVOID the necessity of preserving the identity of Canadian grain for export at American ports the American carriers asked shippers to have it graded at United States shipping points. The Canadian exporters wish to try and increase the foreign demand for Canadian grain, so are opposed to such an arrangement. At a recent meeting of the Montreal Corn Exchange resolutions were adopted calling for the inspection of such grain before shipment from Canadian territory and by a Canadian inspector at New York. After further consideration this plan was decided impracticable, and a committee appointed to provide a better. The commercial exchanges at the seaports would probably establish indepen-

dent grades for Canadian grain if asked to do so. This would bring about the result desired by the shippers and encourage them to ship via these ports.

GRAIN TRADE OF WINONA, MINN.

The crop year ending August 31 was a phenomenal one for all kinds of grain. Barley was an especially prime crop, as is shown by figures given herewith as denoting the number of bushels handled by Winona firms. Prices were good, and in the case of wheat were nearly 25 cents higher than promises for the ensuing year.

A very close estimate places the receipts of grain of all kinds by Winona firms at 12,160,000 bushels, an increase of 4,200,000 bushels over the 1890 crop season, when the receipts aggregated 7,960,000 bushels. These receipts were divided among eight firms, the H. J. O'Neill Company taking the lead by handling an enormous quantity of barley. The other houses have also made an excellent showing as will be seen by a glance at the subjoined summary.

	1891	1890
H. J. O'Neill Co.....	6,000,000	4,500,000
L. C. Porter Milling Co.....	1,800,000	1,600,000
Winona Mill Co.....	1,500,000	500,000
Marfield Grain Co.....	1,400,000	900,000
Lamberton Elevator Co.....	1,600,000	
Morrell & Son.....	200,000	200,000
O. Sontag.....	110,000	75,000
G. H. Krumdick.....	75,000	75,000
Strong & Miller.....	1,000,000	
Total.....	13,160,000	7,960,000

The H. J. O'Neill Grain Company handled something over 5,000,000 bushels of barley. In addition to this wheat, rye, oats, etc., were received to the extent of a trifle in excess of 1,000,000 bushels, making a total of over 6,000,000 bushels of grain handled. These figures present a very gratifying increase as compared with the previous year, when between 4,000,000 and 5,000,000 bushels represented the season's business. About 1,750,000 more bushels of barley were handled during the past crop year than the season previous. The prices were also good, it being a phenomenal barley year. For the coming season it is anticipated that prices will be lower than last. The quality of the barley is inferior, the berry being light in weight and dark colored.

The L. C. Porter Milling Company handled in the way of local receipts about 87,000 bushels, an increase of about 20,000 over the previous year. At the mill the receipts for use from all sources were 1,800,000 bushels, an increase of 200,000 over the preceding season.

Next in importance, perhaps, comes the Winona Mill Company, with receipts aggregating in round numbers 1,500,000 bushels, the principal portion of which was wheat. Mr. A. G. Moritz says that the year just ended was an unusually favorable one for grain of all kinds, and the company had in consequence handled about 500,000 bushels in excess of the business of the preceding season. Prices were in the main much better than ordinary, and the general quality of the grain handled was above the average.

The Marfield Grain Company handled during the crop year just closed a trifle over 1,400,000 bushels of grain. Of this fully 75 per cent was wheat, and the balance mixed grain. These figures represent an increase in business over the preceding year of about 500,000 bushels, which is a substantial showing in comparison.

The Lamberton Elevator Company handled in the neighborhood of 1,000,000 bushels through their elevators on the Winona and Southwestern road in addition to their regular city business. Of this amount barley was the principal item, with oats next at 200,000 bushels, and flax a good third, 150,000 bushels. The grain all graded good and was of fine quality. No comparison can be made with the previous year, owing to the fact that the operations along the Southwestern line were confined almost exclusively to the year just closed.

Morrell & Son come next with receipts aggregating 200,000 bushels of all kinds of grain. The bulk of this was wheat, with oats second with a good showing. Grain was handled in about the same quantity for the previous year, with prices nearly the same, tending a shade lower, as of course last year's quality was the better.

Mr. O. Sontag's receipts were about 110,000 bushels. Barley was the predominating element, while about one-fifth of the receipts were wheat. About the same amount was handled during the preceding year, but prices for rye were a shade better, on account of the comparatively

short crop. On the average prices were better than for the preceding crop year.

About 75,000 bushels of grain, principally barley, were handled by Mr. G. H. Krumdick. Relative quantities were also handled in oats, wheat and corn. About the same number of bushels of grain of all kinds were handled during the preceding year.

Strong & Miller, who at the same time as the Lamberton Elevator Company, built up a business and established elevators along the Winona and Southwestern railway, up to a month ago had their offices in Winona. At that time they sold out to the H. J. O'Neill Grain Company. The amount of grain handled by them during the year approximated 1,000,000 bushels. Since the transfer of their line of elevators Strong & Miller have closed their offices in Winona. This purchase by the O'Neill Grain Company has extended their line of business. Mr. E. D. Dyar, formerly of Dover, has been admitted to an interest in the concern, and was on Sept. 1, elected secretary of the company. The recent organization of the Minnesota and Dakota Grain Co., with offices at the Winona Mill Co.'s headquarters, was an important event in grain circles, as it brought to Winona the offices of an important line of elevators in South Dakota.

BUCKET-SHOP SCALPING.

"In these days of political scalping," said an old telegraph operator the other day, "I am reminded of an instance in bucket-shop scalping that was unique in its way, and loaded the man in whose fertile brain the scheme originated with a roll that made him feel good. The scene was laid in Houston, Tex., and it was at the time the Baltimore & Ohio Telegraph Company was in its infancy in that state. A gentleman from Chicago stepped into the Baltimore & Ohio office in that town one day and asked the manager if he could beat the Western Union in getting quotations on the grain market from St. Louis. The manager thought he could, and agreed to lay down the quotations fifteen minutes ahead of the regular Western Union quotations to the bucket-shops. Arrangements were made with St. Louis and Galveston chief operators to allow nothing to delay messages dated St. Louis to Mr. Blank at Houston and signed Blank; they must be kept moving at the expense of all other business. To do this the operators stopped in the middle or anywhere that they might happen to be in the transmission of other messages in order to rush Mr. Blank, which made the wire say something like this: 'Jennie died this morning—Bk—St. Louis, Blank, Houston, 98½. Blank at 10 o'clock. Charles.'

The result of this extraordinary and not very regular proceeding was that Mr. Blank got his quotations from ten to twenty minutes ahead of the bucket-shop quotations sent by the Western Union. The messages were carried to him at a given point along the sidewalk, where he received them without stopping in his stroll down toward the bucket-shop and in such a quiet way that no one would observe that he had received a message from the boy. He would then walk into the bucket-shop, make his deal and walk out to wait for the regular quotation, when he would go back and take in his margins. The messages in three days cost him \$97.50, but he cleared a roll of scalps away up in the hundreds before he was spotted and barred out."

SHRINKAGE OF HAY.

There is no fixed or established amount of water in hay, but the quantity varies with circumstances. Farmers, deciding according to their judgment, differ in the amount of drying to which they would subject the drying grass. The more nearly the grass ripens the freer from water it commonly becomes. In a dry, hot summer it is usually found drier than in a wet season. If made quite dry it would not lose much, if any, in weight the next spring. Where weighing has been frequently practiced it has been found actually to increase in weight as the weather became more moist in autumn after a dry summer. The amount of loss of water would vary with the mode of stowing it away. If in small and loose masses it would dry or become heavier faster than when placed in a large and solid stack, or if packed away solid in a large barn. As a general rule it may be laid down that the same quantity of hay is lighter in April than in the previous August; and although the weight is subject to various fluctuations, on the whole it becomes lighter in time, but less so than many suppose.

ELEVATOR AND GRAIN NEWS

An elevator is being built at Grant, Neb.
 An elevator is to be built at Byron, Mich.
 An elevator is to be built at Guide Rock, Neb.
 Spokane, Wash., is talking of a starch factory.
 Youngstown, O., will have a big grain elevator.
 Another elevator is being built at Anselmo, Neb.
 J. S. Blasdell is building a grain house at Rands, Ia.
 A grain warehouse is being built at Monmouth, Ore.
 The new elevator at Owosso, Mich., has been opened.
 H. H. Karsten has built an elevator at Zeeland, Mich.
 The elevator at Glenwood, Minn., has been remodeled.
 Mr. Rickard has completed a new elevator at Elsie, Neb.
 The new elevator at Tyler, Minn., was opened September 1.
 R. D. Hubbard is building an elevator at Sleepy Eye, Minn.
 Casper Hachule is building a malt house at Jackson, Mich.
 Ovilla Papiueau, grain dealer at Montreal, Que., has sold out.
 The elevator at Mayer, Minn., has been overhauled and repaired.
 The new elevator at Lamberton, Minn., has nearly been completed.
 The new elevator at Rockford, Ill., is rapidly nearing completion.
 Alma, Colo., has two elevators of 10,000 bushels' capacity each.
 W. H. Austin & Co., grain dealers at Upland, Neb., has sold out.
 Mason Gregg has sold out his grain business at Ohio, Neb.
 The large starch factory at Des Moines, Ia., has nearly been finished.
 Van Valkenburgh & Son, grain dealers at Keene, Neb., have sold out.
 Conger & Crawley of Galva, Ia., have completed their new elevator.
 A. Winters has bought J. E. Robbins' warehouse at Lake View, Ia.
 Olivia, Minn., has four grain elevators, two of them just completed.
 The Heiser Elevator Company has been incorporated at Heiser, Kan.
 Dahl & Peterson have completed their new elevator at Willmar, Minn.
 A rice mill of 200 barrels' daily capacity is being built at Westlake, La.
 The Alpena Brewing Company is building a malt house at Alpena, Mich.
 Work is rapidly progressing on the new elevators at Clay Center, Neb.
 A. J. Morris of Davis, Ill., has started a feed mill at his grain elevator.
 S. Voffler Bros. are building a 25,000 bushel elevator at Lamberton, Minn.
 The International Grain & Stock Board of Chicago has been dissolved.
 The elevator at Lakefield, Minn., was opened for business September 15.
 B. F. Morehouse, grain dealer at Beaver Crossing, Neb., has sold out.
 W. W. Cargill & Co. have opened their new elevator at Green Bay, Wis.
 A carload of rye was recently shipped from the elevator at Coopersville, Mich.
 Fraser & Ballou, grain dealers at Larrabee, Ia., have dissolved partnership.
 Solomon Sheftall, dealer in hay and grain at Savannah, Ga., has sold out.
 One bank at Lyon, Kan., paid out for wheat in three weeks recently \$35,500.
 P. C. Nelson, grain dealer at Bee, Neb., has been succeeded by Nelson & Co.
 Strong & Miller, grain dealers of Minneapolis, who recently sold twelve elevators to the H. J. O'Neill Grain Company, will in the future limit their operations to their

Hastings and Dakota line of elevators, and possibly build a mill at Kalispel, Mont.

The foundation under the round elevator at Montevideo, Minn., has been rebuilt.

The Geo. Ruder Brewing Company of Wausau, Wis., is building a malt house.

J. T. Walsh is buying considerable wheat at his elevator in Benuington, Mich.

Wm Van Buren has placed an electric motor in his elevator at Carleton, Neb.

Twenty elevators are being built between Red Cloud and Haigler in Nebraska.

Dilley & McIntosh, grain dealers at Renville, Minn., are about to sell their business.

J. K. Smith & Son, grain dealers at Nokomis, Ill., have dissolved partnership.

Gregg & Kyser, grain dealers at Lincoln, Neb., have moved to Kansas City, Mo.

Brown Bros, grain dealers at Empire Valley, B. C., have dissolved partnership.

A. L. Harkoun & Co., grain dealers at Wichita, Kan., have dissolved partnership.

Shorett & Keehner have bought the grain business of L. Steinberg at Earling, Ia.

J. A. Mabey has bought the elevator of Mabey & Bouton at Lake City, Minn.

C. B. Lake & Co., dealers in grain and hay at Fairmont, Minn., have sold out.

The cauning factory at Waterloo, Neb., is being converted into a grain elevator.

The Northwestern Elevator Company is building an elevator at Clara City, Minn.

G. Gluck & Sons of Minneapolis, Minn., will build an elevator, malt house and dry kiln.

S. B. Samuelsoa & Co., grain dealers at Stromberg, Neb., have dissolved partnership.

An elevator will be built at Broken Bow, Neb., by the Custer County Farmers' Alliance.

S. E. Boyd & Company, grain and commission dealers at Galveston, Tex., have sold out.

The Farmers' Union Elevator Company of Wayne, Neb., began business September 10.

The farmers near Bertrand, Neb., have subscribed \$4,000 toward building a grain elevator.

The annex to the "C. P. R. Elevator" at Fort William, Ont., has been named Elevator "C."

A 20,000 bushel grain elevator is being built at Decatur, Tex., in connection with a flour mill.

The Fidalgo Elevator and Warehouse Company has been incorporated at Anacortes, Wash.

C. E. Benedict & Co., grain dealers at Erie, Kan., have been succeeded by F. J. Benedict & Co.

The new elevator or the Hunter Milling Company at Wellington, Kan., is nearing completion.

A. G. Scott & Son, grain dealers, do a large business through their elevator at Holdrege, Neb.

Murdock & Wilson, dealers in grain and coal, at Oconee, Neb., have dissolved partnership.

Heagy & Lee have bought the steam elevator at Sac City, Ia., formerly occupied by B. Baxter.

The White Rock Mineral Spring Company will build a malt house and brewery at Waukesha, Wis.

The elevator of the Bozeman Milling Company at Bozeman, Mont., has nearly been completed.

A 30,000 bushel house is being built at McIntosh, Minn., by the Red River Valley Elevator Co.

Seymour & Co., commission grain dealers at Kenton, O., have been succeeded by W. H. Seymour.

Hodges & Hyde of Fairmont, Minn., have been succeeded by the S. Y. Hyde Elevator Company.

The grain business of C. Kellner at Octavia, Neb., has been moved by Mrs. Kellner to Beaver Crossing.

The Farmers' Grain & Stock Company has been incorporated at Wayne, Neb. Capital stock, \$10,000.

A. G. Kneeshaw of Wilcox, Neb., has sold his elevator at that place to N. A. Duff & Co. of Syracuse.

The Huntington Elevator Company is putting a new shingle roof on one of its houses at Owatonna, Minn.

W. J. Redfield, dealer in grain and farm machinery at Fonda, Ia., has been succeeded by Redfield & Selzer.

Louis G. Graff, commission grain dealer at Philadelphia, Pa., has been succeeded by L. G. Graff & Son.

Rappey & Young, dealers in grain, flour and feed at Stafford, Kan., have been succeeded by J. H. Sanders.

J. A. Campbell & Son of Lincoln, Neb., are putting in a wagon dump for Parkinson Bros. of Ainsworth, Ia.

The Nye & Schneider Company of Fremont, Neb., has recently bought the Cottrell Grain Company's elevators at Seward, Dwight and Cordova and the business

at Bee Siding, Neb. The Nye & Schneider Company now does business at forty-seven stations.

The Goodwine Grain Company of Goodwine, Ill., is running its elevator to its fullest capacity receiving grain.

A grain elevator and flour mill will be built at Canton, S. D., by a company just organized with \$60,000 capital.

The A. C. Horton Grain Company has been incorporated at Grand Rapids, Mich., with \$10,000 capital stock.

The men employed in the Duluth elevators at Duluth, Minn., had their second annual picnic recently at Flood Bay.

The McLane Elevator Company of Lakefield, Minn., is building houses at Clontarf, De Graff and Grove City, Minn.

Rees & Braasch of Norfolk, Neb., have been awarded a contract to furnish the government with 60,000 bushels of oats.

The fine residence of L. K. Morris, dealer in grain and lumber, at Holdrege, Neb., was badly damaged by fire recently.

The Northern Grain Mercantile Co., of Ashland, Wis., has bought six elevators of O. W. Mosher & Co., of New Richmond.

The St. Anthony & Dakota Elevator Company has bought the elevator of W. H. Greenleaf & Son at Grove City, Minn.

Sampson & French have sold their elevator at Woodstock, Minn., to Stair, Christenson & Case, grain dealers of Minneapolis.

John L. Treller of Mertztown, Pa., recently bought a No. 1 Cutler Grain Dryer of the Cutler Company of North Wilbraham, Mass.

O. A. Johnson of Glaza, has bought the elevator at Pierson, Ia., owned by the Plymouth Roller Mill Company of Plymouth.

Deets & Company, dealers in grain and live stock at Earlington, Kan., have been succeeded by F. R. Cornelius & Company.

The Northwestern Malting Company of Davenport, Ia., is about to build a 100,000-bushel elevator, malt house and dry kiln.

The new elevator of the Spencer-Kellogg Company at Buffalo, N. Y., began business August 16 by unloading the barge Michigan.

Col. Hollaway of Fairland, Tex., is building an elevator to be equipped with machinery for separating and polishing pecan nuts.

Simpson & Robinson of Minneapolis, Minn., are building several elevators in South Dakota for Stair, Christian & Case, grain dealers.

The "Heywood Elevator" at Rosedale near Kansas City, Kan., is rapidly nearing completion. The railroad tracks have been laid.

Fourteen elevators and mills in Washtenaw Co., Mich., had up to August 26, purchased 574,333 bushels of wheat grown in that county.

C. C. White, the miller of Crete, Neb., has had dump scales and dump put in. J. A. Campbell & Son of Lincoln, Neb., did the work.

F. J. Little is building a 10,000 bushel cleaning house at South Chicago, Ill., after plans made by the Heidenreich Company of Chicago.

R. Ironside of Manitou, Man., proposes to buy grain at Prince Albert, Saskatchewan, if the people will put up a flat house and lease it to him.

Hancock & Tibbels of Defiance, Ia., have recently bought a No. 2 Victor Corn Sheller of the Barnard & Leas Manufacturing Company.

The Midland Elevator Company of Kansas City, Kan., has gone into court to escape a heavy tax levied by the commissioners of Wyandotte Co.

Frick & Tyler, grain dealers of Wooster, O., have two warehouses and also deal in wool, flour and fertilizers. The business was started in 1862.

W. C. Luce of Broken Bow, Neb., has recently bought a Little Victor Corn Sheller and Cleaner of the Barnard & Leas Manufacturing Company.

The Julian Elevator Company has been incorporated at Julian, Neb. Capital stock \$3,300; incorporators, M. Pyle, J. H. Coop and J. Wilberger.

Keefur Ames of Alvard, Ia., has recently bought a Barnard Warehouse Separator of the Barnard & Leas Manufacturing Company of Moline, Ill.

Hagerty, Hunter & Co. of Peoria, Ill., have recently purchased a No. 2 Cutler Steam Grain Dryer of the Cutler Company, North Wilbraham, Mass.

J. A. Campbell & Son, the elevator builder of Lincoln, Neb., have taken the contract to furnish machinery and place same in an elevator at Nichols, Ia.

E. D. Morris & P. H. Davis of Belgrade, Neb., have bought the elevator and grain, coal and stock business of the S. S. Hadley Company at that place.

The A. P. Dickey Manufacturing Company of Racine, Wis., is putting in its grain cleaners at La Fontaine, Ind., Waterbury, Conn., Kasbeer, Ill., Purdy, Mo., Vernon,

Texas, two at Preston, Minn., one at Oneonta, N. Y., and at Rockford, West Chester, Iowa City, Peterson and Nichols, Iowa.

The Russell-Dolman Grain Company of Kokomo, Ind., made one sale recently of 100 ears wheat to the Isaac Harter Milling Company of Fostoria, O.

The Commercial Club of Mobile, Ala., having been successful in inducing Minneapolis parties to build an elevator at Mobile, four others are talked of.

Reeve & Crosby have started in the grain business at Minneapolis, Minn. Charles Crosby was formerly manager of the Red River Valley Elevator Co.

W. W. Brickman of Beatrice, Neb., has recently bought a complete outfit of elevator machinery of the Barnard & Leas Manufacturing Company.

The H. J. O'Neill Grain Company of Winona, Minn., recently elected H. J. O'Neill, president; E. D. Dyar, vice-president, and G. M. Charles, secretary.

At its annual meeting in C. H. Graves' private office at Duluth, Minn., the Lake Superior Elevator Company, on August 16, re-elected its old board of directors.

Fred Parks of Rummerfield, Pa., has recently bought a Little Victor Corn Sheller and Cleaner of the Barnard & Leas Manufacturing Company of Moline, Ill.

The Cutler Company of North Wilbraham, Mass., has recently shipped four No. 3 Cutler Steam Grain Dryers to the Geo. P. Heilman Company of Henderson, Ky.

The Wabash Elevator Company of Toledo, O., has recently bought two Barnard Elevator Separators of the Barnard & Leas Manufacturing Company of Moline, Ill.

The City Elevator Company of Davenport, Ia., has recently bought a No. 3 Barnard Elevator Separator of the Barnard & Leas Manufacturing Company of Moline, Ill.

Bois, Dean & Co. of Seward, Neb., have recently bought a complete outfit of elevator machinery of the Barnard & Leas Manufacturing Company of Moline, Ill.

The Wabash Railroad is building twenty elevators between Chicago and Detroit on its new line, new locomotives and new freight cars will go into service on the new line.

The Farmers' Elevator Company of Palmyra, Neb., whose house was completed June 14 by J. A. Campbell & Sons, had shipped sixty nine ears of grain up to September 3.

A 50,000-bushel elevator and mill is to be built at Boissevain, Man., by the Patrons' Elevator, Milling and Supply Company, recently incorporated with \$48,000 capital stock.

W. C. Henry of Burchard, Neb., has given J. A. Campbell & Son of Lincoln the contract to furnish and set up a full line of elevator machinery, including corn sheller.

Hamilton & Kineade of Wilsonville, Neb., are having an elevator built by J. A. Campbell & Son of Lincoln, who also will put in cleaning machinery and a gasoline gas engine.

C. H. Spencer and A. T. Harlow, grain dealers of St. Louis, Mo., and owners of the elevator at Madison, Ill., have formed the Spencer-Harlow Commission Co. Capital, \$50,000.

The Longmont Roller Milling & Elevator Company has been incorporated at Longmont, Colo. Capital stock \$50,000; directors, F. B. Davis, J. K. Sweeney and F. H. Stickney.

The Panhandle Railroad Company is negotiating for a site at Florence's Switch, midway between South Charleston and London, O., for a grain elevator, side tracks and telegraph office.

Heistand, Warner & Company, grain dealers of Olympia, have bought the Wiley Warehouse at Palouse, Wash., and will enter the market with C. W. Dickerson as local manager.

The A. P. Diekey Manufacturing Company of Racine, Wis., has recently furnished Diekey Overblast Grain Separators for Loomis, Ragan and Hemingford, Neb., and Byron, Mich.

The Cutler Company of North Wilbraham, Mass., has recently sold one No. 3 and two No. 1 steam meal and grain dryers to the Cerealine Manufacturing Company of Indianapolis, Ind.

The "Middle Division Elevator" at Harvey, Cook county, Ill., has recently been equipped with the Morton Grain Ventilator, the working of which has so far given entire satisfaction.

John Crapser has built an elevator at Flint, Mich. Its capacity is 8,000 bushels, and it is equipped with elevating machinery and a grain separator, all driven by a 4-horse power engine.

For the year ending Sept. 1, 1892, the elevator company at Lakefield, Minn., handled 120,000 bushels of grain and 700 tons of coal, an increase of 100 per cent. over the preceding year.

The Revere Rubber Co. of Chelsea, Mass., is making the belts for the new elevator of the Boston & Maine Railroad at Boston, Mass. The sale was made to Simpson & Robinson, who are building the elevator, through Fred G. Davis, the northwestern agent at Minneapolis, Minn. These belts are pronounced by parties who have

seen them to be the best rubber belts ever made; and experts claim that the Boston & Maine Railroad Elevator will be the best belted elevator in the United States.

The Cutler Company of North Wilbraham, Mass., recently sold a No. 1 dryer to the F. Schumacher Milling Company of Akron, O., making ten Cutler Dryers which this firm has in operation.

F. W. Phelps, F. E. Bouton and T. J. Morrow of Lake City, Minn., will engage in the grain business under the firm name Phelps, Bouton & Morrow, and are now fitting up an elevator.

The Peter Heid Grain Company, which has just completed a new 75,000-bushel elevator at Appleton, has bought the "Clough Elevator" at Ripon, Wis., which has a capacity of 30,000 bushels.

The Lake Superior Elevator Company and the Duluth Improvement & Elevator Company have made their elevators private and will do business under the regulations of the Duluth Board of Trade.

The Minnesota & Western Grain Company has been incorporated at Minneapolis, Minn. Capital stock \$100,000; incorporators P. B. Mann, Charles A. Christenson, John E. Stair and Leonard F. Case.

Counselman & Co.'s large new elevator at South Chicago loaded its first cargo, August 24, into the steamer R. E. Schuck. The vessel contained 65,000 bushels of wheat and 35,000 bushels of oats.

At their recent meeting in London, Eng., the stockholders of the city of Chicago Grain Elevator, Limited, were informed that the company had earned its running expenses and fixed charges but no dividend.

The Board of Public Works of the city of Columbus, O., is receiving bids for furnishing f. o. b. cars Columbus, 100 tons timothy hay, 20 tons baled straw, and one ear of white Western oats, all of first quality.

The Great Western Elevator Company has been incorporated at Minneapolis, Minn. Capital stock \$300,000; incorporators, A. D. Mulford, L. C. Mitchell, James W. Raymond, W. D. Sammis and Geo. P. Flannery.

The Barnard & Leas Manufacturing Company of Moline, Ill., has recently sold complete outfits of elevator machinery to parties in Doon, Ia., Alvard, Ia., Merrill, Ia., Sioux City, Ia., Laurel, Neb., and Garrettson, S. D.

The Northern Grain Mercantile Company of Ashland, Wis., has recently bought eight elevators in Dakota and Nebraska and is negotiating for nine more country houses in Michigan on the Wisconsin Central and Omaha railroads.

The A. D. Mulford Company of Minneapolis, Minn., is having a line of elevators erected on the Minneapolis & St. Louis Railroad. Simpson & Robinson, the elevator architects and builders, of Minneapolis, are doing the work.

Considering how new the country is, Manitoba certainly is well supplied with elevator storage room for grain. Elevators are found all along the line of the Canadian Pacific Railway for 1,200 miles west of Port Arthur, Ont.

The Barnard & Leas Manufacturing Company of Moline, Ill., has recently sold Barnard Elevator Separators to the City Elevator Company of Davenport, the Davenport Malt Company of Davenport, and the Des Moines Malt House of Des Moines.

The Ford Grain & Commission Company has been organized at Kansas City, Mo. Capital stock, \$5,000; officers, O. B. Trower, president; A. R. Ford, vice president and general manager; F. P. Strickland, secretary, and W. L. Witmer, treasurer.

The Thorpe Elevator Company has been incorporated at Minneapolis, Minn., to operate elevators and deal in grain. Capital stock \$50,000; incorporators, Garrett L. Thorpe, Ada; William H. and Edwin L. Matthews, Minneapolis, and Arthur A. Cowles, Minneapolis.

J. A. Campbell & Son, designers and builders of grain elevators of Lincoln, Neb., have recently built a steam power elevator for C. A. Sprague at Columbus Junction, Ia. This house is equipped with sheller, cleaner, etc., and to receive grain and shell corn from the track.

The Farmers' Elevator Company of Howard Lake, Minn., held its annual meeting recently and elected M. Holmstrom, president; P. T. Nelson, secretary; Frank Swanson, treasurer, and J. N. Love, J. P. Olson, John Carlson, A. P. Miller and H. Halvorsen, directors.

To move the elevator from Holly to Milford, Mich., was found too expensive, and E. H. Lake, the lessee, having offered to buy the house the F. & P. M. Railway accepted his offer. A new elevator will be erected on the F. & P. M. Railway at Milford, as was the original intention.

The H. J. O'Neill Grain & Elevator Company of Winona, Minn., has bought of Strong & Miller a line of country houses on the Chicago & Northwestern Railway at Rollingstone, Altina, Bethany, St. Charles, Land, Simpson, Stewartville, Wheeler, Ostrander, Leroy, Racine and Osage.

James Stewart & Co., architects and builders of grain elevators of St. Louis, Mo., have recently made a contract with the Louisville, New Orleans & Texas Railway Company for an additional elevator at New Orleans, La., of 500,000 bushels' capacity, to be built adjoining the

elevator erected by Messrs. Stewart & Co. at the company's Southport dock. This is another indication of the largely increasing movement of grain to Southern ports.

Abner L. Baekus & Co. of Toledo, O., are suing David Potts & Co. of Indiana for \$1,966 due on grain sold and delivered. To have something to levy on in case of a favorable decision Baekus & Co. had the sheriff attach 1,498 bushels of No. 2 wheat in the "Union Elevator," owned by defendants.

Owners of many of the ancient transfer elevators which disfigure the harbor at various points, have been ordered to either repair or pull down the structures which have become dangerous through decay. The city will pull them down if the owners do not.—*Buffalo Correspondent Marine Record*.

The order of the Missouri Pacific Railroad freight department that no grain would be received for shipment to the new elevator at New Orleans except that consigned by certain firms does not please other grain shippers. The private company owning the elevator is reported responsible for this discrimination.

Simpson & Robinson, the well known elevator builders of Minneapolis, Minn., report that the work on the 2,000,000-bushel elevator they are now constructing for the Boston & Maine Railroad at Boston, Mass., is progressing finely. Special care is being taken and when finished this will be one of the leading elevators in the country.

Drews Bros. are building a 25,000-bushel elevator at Stillwater, Minn., costing \$10,000. The building is of wood, covered with corrugated iron and neatly painted. It covers 50x60 feet of ground which has been leased for 25 years. Besides furnishing wheat for their flour mill Drews Bros. intend to clean and ship considerable grain.

The Northern Pacific Elevator Co., at its annual meeting held at Minneapolis recently, elected C. H. Graves president, George Pupley vice-president, William Pettit secretary and treasurer, and C. H. Graves, George Rupley, D. Morrison, L. Christian, W. H. Hinkle, R. M. Newport, A. D. Thompson, R. S. Munger and E. Cardin.

The Lake Superior Elevator Company of Duluth, Minn., is defendant in a suit for \$1,276 brought August 29 by the owners of the steamer D. W. Rust for damage and delay caused May 19 by a trestle falling on the vessel. This trestle upheld a long and heavy conveyor connecting two of the elevators and was blown down during a gale of wind.

G. W. Van Duzen & Co. of Minneapolis have filed 75 suits against as many insurance companies in the district court for sums varying from \$75 to \$1,131.90, the insurance on the "Star Elevator," which was burned Aug. 12, 1891. The total loss was \$35,022. The insurance companies claim that the grain was damaged after falling out of the elevator, their policies only covering what was contained in it.

The Nordyke & Marmon Company of Indianapolis, Ind., is now shipping to New Orleans, La., the machinery for the largest rice milling plant ever built. Its capacity will be what is known as a "Forty Pounder" mill. The company is also shipping to the same place the additional machinery required to increase a smaller rice mill previously built by them to a "Forty Pounder" plant.

The "Porter Elevator" opened up here Tuesday last, with some unknown man as buyer. We have a very faint idea that the concern is to run no longer than to be bought out by the other houses, as was apparently done last year and the year before. We have buyers in town who buy wheat from one end of the year to the other, men who live and support their families with us, and until we are assured that this company will run this elevator which formerly proved to be a public nuisance ten months in the year, we believe the good old buyers should be patronized.—*Times, Norwood, Minn.*

The Farmers' Alliance is commencing to drop into the habit of usurping the business of the mercantile world in connection with their agricultural pursuits in this country as has been unsuccessfully tried in some portions of the East. Some time since the Alliance in Douglas county, Ore., bought a big quantity of grain sacks for this season's grain crop, and immediately grain sacks took a big tumble in price, so that merchants of Roseburg, who laid in a supply later are selling at a price which the Alliance can't think of meeting without a sacrifice. It will take a good many dollars, but the managers of the Alliance will learn what the merchants know, that there are two sides to every profit and loss account.—*West Coast Trade, Tacoma, Wash.*

A bill was filed in the Circuit Court at Chicago recently by the Chicago Elevator Company to compel the Wabash Railroad Company to purchase an elevator for about \$400,000, according to a contract made April 25, 1881, between the Wabash, St. Louis & Pacific Railway Company and George L. Dunlap. The railroad leased to Dunlap a piece of land for ten years on condition that he constructed an elevator of the capacity of 1,250,000 bushels. At the expiration of the lease the company was to purchase the building at a price to be fixed by arbitration. Dunlap assigned the lease and agreement to John Hurd and Russell Sage of New York as trustees, and in December, 1889, they conveyed their rights to the complainant. Under foreclosure proceedings the property and effects of the Wabash, St. Louis & Pacific Rail-

way Company, including the agreement in question, passed to the defendant, the Wabash Railroad Company, which asserts that it is not bound by the covenants of its predecessor and has refused to submit the question of valuation to arbitration. The elevator was constructed at a cost of \$500,000 and complainant says it is reasonably worth at present \$490,000, but it is likely to depreciate unless some action is taken immediately. The court is asked to refer the matter to a Master to determine the value of the elevator and then enter a decree against the railroad for the amount.

The farmers are to erect a large grain cleaning elevator at the head of the lakes. The Heidenreich Company, contractors and builders of grain elevators, Chicago, have just closed a contract with the Northwestern Farmers' Protective Association of Dakota for the construction of a mammoth elevator plant at West Superior. The eventual capacity of this plant will be 2,500,000 bushels, of which 500,000 is to be built this fall and the balance during next season. The site for the elevators has been donated by the Consolidated Land Company of West Superior, and is a very favorable one for the purpose. The construction will be similar to that of Counselman's elevator at South Chicago, recently completed by the Heidenreich Company, and of which a description is given in this issue. The cost of the part to be built this fall is \$117,000.



Tickets of membership in the New York Produce Exchange are selling from \$750 to \$730.

The new management of the San Francisco Produce Exchange is advertising the exchange at all the fairs in California. Signs are exhibited, giving statistical information and explaining how grain is bought and sold on the exchange. The object is to increase the business of the exchange.

Flax Inspector Stevens of the Chicago Board of Trade now adds to his weekly report of flaxseed in regular warehouses a statement of the quantity in special bins of which no public record has heretofore been made. The first week he so reported 72,895 bushels of flaxseed, all grades, as in special store.

The Montreal Corn Exchange went on its annual excursion on the afternoon of August 18. Taking a special train the members and invited guests rode to Vaudreuil, where they strolled about the picturesque grounds, partook of a dinner and listened to speeches by prominent citizens and public officials.

The election of the Cincinnati Chamber of Commerce was held September 13. The ticket reported by the regular nominating committee was as follows: President, Richard Dymond; vice president, J. M. Kennedy; treasurer, J. M. Kirtley; secretary, F. F. Collins; directors, Anthony Schmitt, Henry Coope, M. Durner, A. B. Voorheis and Robert Montgomery.

The Toronto Board of Trade has been paying \$70 monthly for quotations. Recently the Great Northwestern Telegraph Company increased the charge to \$150, which seemed to the executive committee too much. Consequently the service was discontinued and members get the market quotations elsewhere.

The New York Produce Exchange owns a strip of vacant land east of its buildings which has always been an expense. A committee, recently appointed to consider what disposition to make of the land, reported in favor of building an annex to the exchange building. The proposition is to be submitted to a vote of the members.

The New York Consolidated Grain and Stock Exchange has begun business in contract grades of grain for "Chicago delivery." More than 200,000 bushels of grain changed hands the first day. The members of the New York Produce Exchange regard this new exchange as an invader of their territory and fear that its speculative business may furnish material for those who are trying to have an anti-option bill enacted.

When the Cincinnati Chamber of Commerce adopted its new by-laws in 1882 members were permitted to buy certificates within 60 days at a cost of \$100; new members paying \$250 during the remainder of the year, \$500 the next year and \$1,000 the next. This proposed increase in price led to the purchase of several hundred membership certificates as a speculation. But after paying the annual dues of \$25 the holders, after a few years, were willing to sell, and so many were offered that certificates can now be had for little more than the original cost with dues added. The members desire to increase the price of the certificates, but so far have not been able to discover any plan that is satisfactory.

One of the overloaded wheat granaries in Randolph county, Ill., bursted recently. Two colts ate their fill of the spilled grain and bursted too.

Receipts of inspected wheat at Winnipeg for the two weeks ending August 20 were 232 cars, against 28 cars for the corresponding weeks last year.

PRESS COMMENT.

NO WONDER PRICES DECLINE.

With warehouses (in Liverpool at least) full to overflowing, and large arrivals every day, with the home harvest in full fling, and cautious buyers who fear to venture further than their actual needs, no wonder that prices continue to decline, even below present abnormal rates. —*Milling, Liverpool.*

FEAR INTERRUPTIONS.

The uncertainties of transportation to Europe now, and other incidents more or less identified with the cholera scare, are causes of serious embarrassment to business in the general grain markets. Investors as well as shippers prefer not to take hold of grain actively, for they all fear the interruptions that go with each new cause of alarm. It seems pretty well settled that the public has decided for the present to hold their undertakings well in hand. —*Minneapolis Market Record.*

STRIKES INTERFERING WITH TRADE.

The trouble in Buffalo in August soon choked the elevators and caused loaded vessels to lie in harbor, with no place to unload their grain cargoes. The flurry was a bad one, and it shows how the demagogues who "lead" labor have it in their power to cut the East from the West and interfere with continental trade at their whim. The public has been sympathetic toward the strikers so long that the strikers have come to believe that they will be upheld in any wanton attack they may make upon the public safety, comfort and convenience. What is to be the end? —*Milling World, Buffalo.*

A CORRECT VIEW FROM ABROAD.

It is said that a great deal of pilfering of grain goes on in American elevators. It might be supposed that as the elevators receive so many bushels, and ship the same quantity of bushels, there would be no reserve of grain in hand to be stolen; but the grain is weighed inwards from the shipper and outwards to the ship, and as in both weighings the elevator people give the elevator the turn of the balance, the result is an accumulation of grain on hand, which is the stuff on which the thieves practice. It is easy to understand that when handling such enormous quantities of grain as some of the American elevators do, the weighmen's anxiety "to be on the safe side" may easily result in a gradual accumulation of grain, to which the proprietors have no more right than the thieves. —*Australian Miller.*

PROFITS ON DAMAGED WHEAT.

It is strange that this idea that grain men make big profits on damaged wheat has gained such wide belief. It is not in accordance with common sense. It is not in keeping with the general conditions of business. It is a rule in business that the best quality of goods is the most profitable to handle, and this is more particularly true regarding farm products than perhaps in any other class of merchandise. Choice flour is relatively in the same position as choice butter, and commands a premium. Bad bread is no more wanted than bad butter. Bad butter can only be sold by putting it at a very low price, as compared with choice quality. In the same way, buyers can be induced to take hold of damaged wheat only when it is offered at a price correspondingly lower than good wheat. —*Winnipeg Commercial.*

RELIABLE PRIVATE CROP REPORTS.

It might be just as well for the parties who send out wild statements to ascertain that speculators who are favored with an ordinary amount of common sense are not influenced in any way by any such statements. No one who hesitates for one moment will believe that the crop of any grain in any particular state has been injured one-half, unless by some unusual calamity. While the crop of wheat in the northwest and corn in the southwest may be damaged—undoubtedly are—such statement should be made with some reasonable qualification. If a statement that the crop has been damaged five, ten or even twenty per cent. is sent out, it may be credited and have some effect, but when it is stated that one half of the crop is wiped out at one swoop, no attention is paid to it—the states are too large and the crops are too liberal to be destroyed except by a widespread and unusual calamity. —*Chicago Trade Bulletin.*

SPECULATIVE DEMAND.

Not only can "legislation designed to destroy an immense speculative demand" for any class of property seriously reduce values when its enactment is merely threatened, but it inevitably must and will still further impair those values whenever it becomes legally effective. It is speculative demand alone which fairly represents their average prospective value during the crop year. It is speculative demand alone which fixes equal values for bread in districts where supplies are locally bounteous and in others in which they may be meager.

Speculation always maintains values at the highest point consistent with world supply and world demand. Speculation bases its campaigns upon the best information money can purchase from expert testimony. It conducts its operations in all the lights of experience. To recite the beneficent offices of speculative demand upon farm prices, year in and year out, would be to review the rise and development of that gigantic mechanism which purchases and markets the country's crops. —*Kansas City Times.*

VALUABLE BOOKS FOR GRAIN DEALERS.

The following standard works will be sent, postage paid, on receipt of prices given:

ROBINSON'S TELEGRAPH CIPHER.—The publishers have recently revised this excellent work, and we are now prepared to supply the trade. Cloth binding, \$1.50; leather.....\$2.00

WEIGH BOOKS.—Containing 125 perforated leaves with four weigh tickets and four stubs to each leaf well printed upon good paper. The books are well bound. Copies will be mailed to any address for.....\$1.00

CLARK'S VEST-POCKET GRAIN TABLES.—A very useful and handy little book for grain buyers; to be used in reducing to bushels any quantity of grain or seeds up to 100,000 bushels. Size 2½ by 8½ inches, 16 pages. Leatherette.....75c. Leather.....\$1.00

WHEAT DOCKAGE TABLES.—These tables, printed on card, show the correct amount of dockage on any ear of wheat containing from 270 to 1,100 bushels at from one-half to two pounds dockage per bushel. No figuring is required, much time is saved and no losses are sustained on account of errors. Price.....\$0.50

POUNDS TO BUSHELS.—These tables which show the number of bushels in any quantity from 20,000 to 70,000 pounds were compiled for the Chicago Grain Inspection Department. They are well printed on good paper and conveniently arranged for quickly finding the number of bushels in a carload. Each book contains ten leaves and each leaf is indexed at margin and printed on one side only. Each book is neatly bound in cloth. They will save clerks much labor and prevent errors in reduction. Price for "OATS" \$1.00; "BARLEY" \$1.00; "CORN AND RYE" \$1.00. The set.....\$2.50

GRAIN DEALERS' AND SHIPPERS' GAZETTEER.—A new publication containing the grain inspection rules for the states of Illinois, Wisconsin, Minnesota, Michigan, Ohio and Missouri, and a complete list of the names of grain dealers and shippers on twenty-five railroads which penetrate the principal grain growing territory of the country. The names were collected recently by the aid of the railroad companies, so the names of no retired firms are given, making it reliable and by far the best book of the kind published. It is well bound and contains 370 pages. Price.....\$5.00

CLARK'S GRAIN TABLES.—This work is published in several different forms, for use in different lines of business. In these tables pounds are reduced to bushels, so that a buyer can quickly determine the correct number of bushels in a load without doing any figuring. Their use effects a saving every day of more than time enough to pay for them. The edition intended principally for reducing team scale weights to bushels contains nine tables, and is bound in paper. Price 50 cents. This will be found invaluable to country buyers. A new edition, intended for shippers and commission merchants, reduces any quantity up to 64,000 pounds to bushels. It contains sixteen tables, and is neatly bound in leatherette. Price.....\$1.50

For any of the above, address

MITCHELL BROS. Co., 184 and 186 Dearborn street, Chicago, Ill.

OBITUARY

Philip Altpeter, maltster at Milwaukee, Wis., is dead.

Philip Drake, grain dealer at Devil's Lake, Minn., is dead.

J. E. Swanson, grain dealer at Carlton, Ore., died recently.

John Black, dealer in grain and produce at Fergus, Ont., is dead.

A. C. Miller, a Chicago grain dealer, died August 13 of heart failure at Mt. Clemens, Mich., whither he had gone for treatment.

John D. Osgood died at Minneapolis, Minn., Sept. 3, aged 38 years. When he went to that city 14 years ago he entered the employ of A. B. Taylor & Co., grain dealers, and later was secretary of the Union Elevator Co., grain buyer for C. A. Pillsbury and at the time of his death was buying grain for the Pillsbury-Wasburn Co., millers. He left a wife and three children.

WATERWAYS

Two very fast steamers are being built at Cleveland for the Great Northern.

When discharged at Buffalo the cargo of the steamer Oregon was found to be sixty bushels short.

The steamer Onoko loaded at Chicago Sept. 4 a cargo of 113,734 bushels wheat, the largest ever carried out of this port.

Rates on the Erie Canal went up during the railroad strike at Buffalo, the roads being unable to dispatch the heavy grain receipts.

Operations will be resumed on the Panama Canal at once, it is said, by a company formed in Paris, France, with \$30,000,000 capital.

A line of steamers will, it is said, be established between Velasco, Tex., and New York, N. Y., for the purpose of carrying export grain.

The steamer William Edwards was short 86 bushels on a grain cargo from Chicago, recently discharged at the "Coatsworth Elevator" in Buffalo.

The plan of floating ships through the St. Lawrence River canals by means of air bags tried recently proved a failure and pontoons had to be used.

The elevator at Gladstone, Mich., recently loaded 99,580 bushels of wheat into the steamer Fred. Schlesinger, which is the largest cargo yet shipped from that port.

The largest wheat cargo ever taken out of Duluth was loaded into the new steel steamer W. H. Gilbert recently. With 105,000 bushels the steamer drew only 14 feet 6 inches.

The City of Venice recently loaded the heaviest cargo ever carried on the great lakes in a wooden vessel. It was 102,042 bushels of wheat shipped by Rumsey & Lightner.

Low water in the Missouri River hinders navigation. The steamer Mason ran aground recently at Jefferson City, Mo., and was not released until 2,000 sacks of grain had been lightered.

The Canadian Pacific steamer Manitoba, bound down from Port Arthur to Owen Sound with 1,614 tons of grain, paid \$322.90 in tolls on passing through the Sault Ste. Marie Canal September 7.

The new Manchester Ship Canal in England has partially been completed. The first grain cargo to enter the canal was carried by the Francesco Gotuzzi from the Argentine Republic to a point eleven miles up the canal.

Since 1867 the freight passed through the Welland Canal between United States ports has varied from 191,817 to 772,756 tons annually. The total annual tonnage was greatest in 1874 when 1,540,081 tons passed through the canal.

As soon as the ice breaks up next spring work will begin on the 20-foot channel through the Great Lakes. The government engineers have found it impossible to prepare the specifications, advertise for bids and let contracts amounting to nearly \$3,000,000 before the winter sets in.

The Chesapeake and Ohio Canal has fallen into the hands of a new management. The holders of 1844 bonds, through trustees, had offered to repair the canal free of cost and Judge Alvey gave them control for four years. The new management has already produced good results.

South Chicago is becoming more prominent as a grain shipping port since Counselman & Co.'s elevator there was opened. The steamer R. E. Shuck recently took out 65,000 bushels of wheat and 35,000 bushels of oats. The elevator is near the mouth of the Calumet and tow bills are low, while on the Chicago River towing bills are high and promise to be still higher because the city is compelling the tugs to burn smokeless fuel.

Tributary to the port of Mobile, Ala., is the commerce of 1,087 miles of navigable rivers. Mobile Bay furnishes a deep and large harbor, with twenty-four feet of water over the outer bar, which depth can be increased and easily maintained without expensive jetties. Owing to the natural advantages of Mobile Bay the government engineers favor the improvement of the harbor and the seven rivers that flow into it.

The Sault Ste. Marie Canal tolls went into effect September 1. Canadian shippers are paying the tax, hoping that the Dominion will make good the loss. The toll also falls on the Canadian vessel owners who have been compelled to leave Lake Superior or reduce freight rates. The first Canadian vessel to pay toll was the United Empire which paid \$112 on 572 tons of flour, etc. On its cargo of 684 tons wheat no toll was collected as it was destined for Port Huron, Mich. Upon arrival there, however, the collector of customs refused to permit the discharging of the cargo without instructions from Washington. To avoid delay the shipment was unloaded at Sarnia, Ont. A third interest that is suffering on account of the toll is the export trade of Montreal. The city

could to a great extent neutralize the ruinous effect of the Sault tolls by abolishing its port dues which are admitted to be excessive.

Capt. W. L. Marshall of the United States Engineer Corps, has written to the Cook County Drainage Commission signifying his desire to have published in the annual reports of the chief of engineers information bearing on a navigable waterway between the great lakes and the Mississippi River.

Captain Marshall in his last report on the Hennepin Canal said that the funds on hand June 30 would be applied to the payment of expenses connected with the legal proceedings in acquiring right of way around the lower rapids of Rock River near its mouth and to purchasing the necessary plant and constructing the works of navigation in the vicinity of said rapids.

KANSAS CITY'S STORAGE CAPACITY AND REQUIREMENTS.

BY J. C. D.

In the matter of grain elevators Kansas City stands well represented, having a storage capacity of 4,864,000 bushels, and a daily receiving and discharging capacity of 1,275,000 bushels. This is a very good showing, and although it means a large volume of grain, it is still a better sign for the city and surrounding country, that it is not large enough for the wheat which is coming in, and more elevators are needed. This 4,864,000 storage and 1,275,000 handling capacity is divided as follows:

"Union" elevator, owned by Davidson & Smith, 400,000 bushels storage, 100,000 handling; "Novelty" elevator, Christopher & Smith, 250,000 storage, 100,000 handling; "Missouri" elevator, Moore & Co., 175,000 storage, 50,000 handling; "Kaw" elevator, A. J. Mead, 45,000 storage, 40,000 handling; "Crescent" elevator, Gregg & Co., 200,000 storage, 100,000 handling; "Empire" elevator, J. J. Heim, 400,000 storage, 20,000 handling; "Alliance" elevator, E. L. Martin & Co., 49,000 storage, 5,000 handling; "Sun" elevator, Kansas Grain Co., 300,000 storage, 50,000 handling; "Exchange," Counselman & Co., 250,000 storage, 70,000 handling; "Star" elevator, Yost, Thomas & Co., 45,000 storage, 15,000 handling; "Advance" elevator, Minter Bros., 35,000 storage, 10,000 handling. Kansas City, Kas.—"Kansas" elevator, A. S. Pierce, 100,000 storage, 20,000 handling; "Argentine" elevator, Higgs Commission Co., 150,000 storage, 40,000 handling; "Union Pacific" elevator, Midland Elevator Company, 1,000,000 storage, 250,000 handling; "Atchison, Topeka & Santa Fe" elevator, Midland Elevator Company, 750,000 storage, 150,000 handling; "Rosedale" elevator, Johnson & Brinkman, 100,000 storage, 50,000 handling; "Farmer's" elevator, F. A. Farmer & Co., 400,000 storage, 20,000 handling; "Rock Island" elevator, Talpey Bros. & Co., 99,000 storage, 50,000 handling; "Western" elevator, Hayward & Co., 125,000 storage, 75,000 handling.

For the year ending June 30, 1892, the total receipts of wheat in these elevators were 12,349,458 bushels, divided as follows, July, 307,783; August, 1,545,731; September, 1,939,167; October, 1,057,338; November, 2,495,991; December, 1,383,568; January, 879,288; February, 520,480; March, 638,861; April, 341,941; May, 460,175; June, 775,125.

These figures do not include the 5,000,000 bushels of corn and more than half as much oats and rye which passed through the elevators. All figures show a large increase over previous years. New elevators have been built almost by force of circumstances, and it is quite as necessary that more be built as it is that the Sun, Exchange, Star, Western, Advance and Farmer's elevators were built within the last twelve months ending June 30. These new elevators represent 1,155,000 bushels storage, and 240,000 bushels handling capacity. Even with this great storage capacity and excellent handling facilities Kansas City is today unable to handle the wheat growing in the state of Kansas. The elevator business of Kansas City is growing, and growing steadily, but it is not keeping pace with the rapid strides of the great wheat fields of Kansas. The reports since 1875 show that there has been a gradual enlargement of the elevator capacity, and a glance at the crop reports shows that whenever new elevators have been built they have invariably gone up after a heavy crop of wheat, thus proving that they were a necessity. In 1875 the storage capacity of grain in elevators was 375,000, and handling, 55,000 bushels; in 1876 it was 920,030 and 170,600; in 1877, 320,000 storage, handling, 295,000; 1879, 1,495,000 storage, 545,000 handling; 1880, 1,560,000 storage, 590,000 handling; 1883, 1,620,000 storage, 605,000 handling; 1884, 1,910,000 storage, 665,000 handling; 1885, 1,990,000 storage, 675,000 handling; 1886, 1,803,030 storage, 605,000 handling; 1888, 1,775,000 storage, 650,000 handling; 1889, 1,820,000 storage, 700,000 handling; 1890, 2,970,000 storage, 1,030,000 handling; 1891, 3,745,000 storage, 1,085,000 handling; 1892, 4,864,000 storage, 1,215,000 handling.

This is a most excellent showing, but still there is felt most severely a lack of storage room. New flouring mills will bring elevators with them. The Pierson mill which is going up now will have an elevator storing 200,000 bushels, while the Corle Milling Company will soon finish its own elevator holding 125,000 bushels of grain. There are many elevators here, but not enough.

There is a strong demand here for public elevators, and the city could stand 3,500,000 bushels more storage capacity, and then fill every bin. At present there is but one public elevator in the city, and that is the Em-

pire, with a storage capacity of 400,000, and a handling capacity of 20,000 bushels. According to law all elevators in Missouri having a storage capacity exceeding 75,000 bushels must declare themselves public elevators, but then they must furnish a bond before they can do business and issue warehouse receipts. Kansas City can never become a speculative market until it has public elevators, so that warehouse receipts may be issued and trading done on them, a warehouse receipt always being good for the amount of grain it represents.

One big grain man said on 'change on Saturday last that Kansas City ought to outstrip St. Louis as a trading city, and that the 300,000-bushel deals recorded in St. Louis ought to be made here, and should be made here by rights. State laws are not inducive to public elevators, since they require that as soon as an elevator is declared public it shall not mix grain nor do its own inspecting, but that state inspection shall obtain. St. Louis is subject to the same laws, as is Kansas City, and yet it does an enormous business. Kansas City Commercial Exchange inspection, now in force at all elevators here, is far superior to state inspection, and French Bros. on September 9 received the following telegram from Chicago:

"The Herald says the Kansas City grade is in much favor this year, and that there have been large transactions based on it. Millers are equipping to handle wheat of Kansas grades, and the demand for this grade is increasing."

It is almost entirely a question of grades which prevents several of the elevators here from being declared public. The state insists that public elevators shall use state inspectors' grades, while the grain men prefer their own grades. State inspection was tried here for several months, with the results that innumerable complaints came from all sides, stating that the grades did not hold out and this market was fast losing its reputation, but by a heroic effort the state was set at defiance and the grain men adopted their own grade, the grade of which the Chicago Herald speaks so highly, and to-day there is pending in the supreme court the case of the State vs. Kansas City Commercial Exchange on this very question.

Next year the grain men aver they will see to it the laws are remedied, as they are convinced better results can be obtained in this direction than by allowing incompetent state officials to establish grades. Public elevators are absolutely essential to a speculative market. One grain broker on Sept. 8 received an order for 500 cars of wheat, and he was unable to buy them because there were no warehouse receipts he could secure. None of the elevators here, representing nearly 5,000,000 bushels of grain, dare issue warehouse receipts on which to trade. Kansas City ought to handle fully one-half the crop of Kansas. It does not require so very many elevators to handle a big crop, as the grain is constantly kept moving, and for every 100 cars brought to market as many more go out. The trouble has been here that there are not the elevators to receive the grain, and the consequence has been that railroads were obliged to either refuse to haul the grain or else take it to some other city, where elevators could be found to contain it. It is all well enough to send grain to a market, but in time of rush, as now the case, a buyer must be quickly found, or an elevator be accessible, in order that the cars may be unloaded and once more sent out into the country to bring in more grain.

As it now stands, a track man or receiver cannot store a car of grain except as a favor from the proprietors of elevators, and then upon payment of a toll, which is not objected to in the least. In a recent discussion between the grain men and the railroads the former advanced the theory that they were being discriminated against, but the railroads showed them very clearly that it was a question of elevators, and this fact will not be lost sight of by the grain men. Each succeeding crop from the great wheat state of Kansas, pouring its 75,000,000 bushels of golden grain through this gateway in one long, steady, resistless stream, looking for some big storehouse where it may be kept, brings with it the cry of more elevators, and it is a matter of surprise that the question of elevators is not agitated more.

Every elevator in commission to day is paying, and paying handsome returns upon the investment. The railroad authorities say emphatically they will haul every bushel of grain to this market its elevator will take care of. It is plainly apparent that Kansas City requires much more elevator capacity than it has to-day, whether they be of a public or a private character.

Our imports of rice in July were 3,953,600 pounds, and of rice flour, rice meal and broken rice, 9,708,051 pounds, against 11,656,834 pounds rice and 7,523,525 pounds rice flour, rice meal and broken rice, in July, 1891. During the seven months ending with July we imported of rice 49,662,754 pounds, and of rice flour, rice meal and broken rice 40,071,066 pounds, together valued at \$1,732,116; compared with 105,735,857 pounds rice and 51,667,753 pounds rice flour, rice meal and broken rice, together valued at \$2,167,242, during the corresponding period of 1891. From the Hawaiian Islands we imported in July duty free and re-exported 449 pounds of rice, against 8,835 pounds in July last year; and in the seven months ending with July, 1,589 pounds, valued at \$93, against 13,967 pounds, valued at \$525, in the corresponding months of 1891. Of our imports from other foreign countries we re-exported in July 665,952 pounds, against 1,008,589 pounds in July, 1891; and for the seven months ending with July we re-exported 5,961,428 pounds compared with 5,858,381 pounds rice for the corresponding period of 1891.

CROP : CONDITIONS.

NORTHERN MISSOURI.—Two-thirds of the wheat is threshed. The quantity is fully up to expectations, but the quality is way below. The movement is falling off largely.

FLAXSEED.—The new flaxseed is moving to market in fairly liberal but not excessive quantities. The quality in the main is good, and some in the trade estimate the yield at about 13,000,000 bushels. This is less than the crop of 1891.

OHIO.—Ohio reports that corn has not done much for the last two or three weeks, and the bulk of the crop would be damaged by frost at any time during the present month. The weather has been cool and the temperature has been quite near the frost line.

INDIANA.—In Southern Indiana a small proportion of the corn crop, perhaps 10 per cent., has matured. The hot dry weather has pushed it rapidly on. In Northern and Central Indiana it will be a week, at least, before any corn to amount to anything will have matured.

TEXAS.—Texas reports that 50 per cent of the land is ready to seed. Some few have now sown. Corn is safe from frost, and considerable now in the crib. There is little movement of wheat, and some millers report that they are running short of stock and expect soon to be compelled to draw from other states until farmers see fit to sell.

IOWA.—I am not able yet to report any corn safe in Iowa, writes crop expert Prime. A large proportion of it will need all of this month without frost. No corn is even ripe enough to feed. The nights are reported cool and the general conditions have the tendency to keep corn green and slow to mature. The movement of oats will be limited this fall. Old oats are reported to be cleaned up closely.

SOUTHERN KANSAS.—Southern Kansas reports that the ground is in fine condition for seeding, but as a rule farmers will not begin sowing much before the 20th of this month. In many instances the yield is rather larger than first threshing indicated. From two-thirds to three fourths of the crop remains to be threshed. The large movement of wheat has fallen off on account of recent rains and seeding time being at hand.

SPRING WHEAT.—From all that can be ascertained of the incoming spring wheat crop, a shrunken berry, containing an unusually large amount of gluten, will predominate. This will make the flour from such grain extra strong and capable of absorbing a proportionately larger quantity of water. The wheat of the crop just closed was different from the new grain in that the kernels were plump and contained a larger per cent. of starch.

KENTUCKY.—Kentucky reports that the dry weather continues, and little plowing has been done. The receipts of wheat now are by no means as satisfactory as they were early in the season on account of the berry being sprouted by rain while standing in the shock. No corn is out of the way of frost yet, and it will be several weeks before corn is matured. Farmers seem to be generally discouraged at the low prices of wheat, but are as usual preparing an average amount of ground.

KANSAS.—S. T. K. Prime reports that in Southern Kansas some corn is now safe from frost. Late corn will be out of danger by Sept. 20. No indications of frost. Not a "katydid has peeped yet." In Northern Kansas no corn to amount to anything has yet matured. The bulk of the corn needs from Oct. 25 to Oct. 30. The remainder will take until Oct. 15. This wide range of time of maturity of the crop arises from the fact of the irregularity of time of planting. Kansas has been close to the frost line twice.

NEBRASKA.—There is between 5 and 10 percent of the corn crop now that is safe from a light frost. A hard frost would do great damage to fully one-half of the crop, but it will take good weather all this month to make a sound crop of corn. No new corn is yet fit for feeding. Farmers have been selling old corn freely. About 20 per cent of the old corn remains in the hands of farmers. The oat crop is about all threshed, and there will be few if any oats sold this fall at present prices. Those who are fortunate enough to have a surplus prefer to sell their wheat or corn.

KANSAS CROP REPORT.—The Kansas crop report of the State Board of Agriculture is as follows: During the month of August our correspondents report that threshing has been done in 103 of the 106 counties of the state and that the average yield of wheat per acre reported by threshers up to September 1 is as follows: Eastern belt, 14 bushels per acre, Central belt, 20 bushels per acre, and Western belt 17 bushels per acre. The actual yield of wheat as shown by threshers' reports is higher than the estimate of a month ago. Should the balance of the crop yet to be threshed yield equally well the total winter wheat product will be increased over the previous estimate near 5,000,000 bushels, making a total winter wheat product for the state of about 70,000,000 bushels. The average yield of oats per acre as reported by threshers was as follows: For the Eastern belt 26 bushels, Central belt 35 bushels, Western belt 28 bushels. This, too, shows a higher yield per acre than was reported a month ago, and the aggregate amount of oats for

the state will be considerably increased over the previous estimate. The early part of August the corn crop in many portions of the state was seriously damaged by dry and intensely hot weather. Our correspondents report the average condition of corn for the state nine points lower than a month ago, having reduced the estimate from 77 to 68 per cent. of an average crop.

MISSOURI.—The Missouri weather crop bulletin says that the serious drouth in the state, which had begun to affect corn and endanger the preparations for fall sowing, was broken by the general rain. Correspondents generally agree that this rain is the last needed by late corn, and, barring an early frost, insures, at least, a fair crop. Plowing and seeding can now be prosecuted vigorously and advantageously. Prime reports that in Southern Missouri corn has about matured, and the prospects indicate from 50 to 75 per cent. of an average crop. In the Northern portion of the state they need fifteen to twenty days yet. The weather recently has been cool, and corn has not done much.

SPRING WHEAT.—Yield and quality do not compare favorably with last year and the late wheat has been hurt some by frost. In Central and Southern Minnesota all of the wheat is in shock. In North Dakota about 85 per cent of the wheat is in shock, and quite a little threshing has been done. It is thought the rains have hurt the wheat in shock a little. The situation in North Dakota this season has been trying one, and we ought not to expect great results from a season which started with rain, and was hot at the finish. In South Dakota the wheat is either all in the shock or in the stack. Receipts of wheat are increasing every day. Receipts, however, are light for the season of the year. South Dakota has an increase in acreage and a fair yield, but not what was expected. The crop is made up of all grades.

ILLINOIS.—There is no corn to day in Northern and Central Illinois that is yet out of the way of frost. A small portion would do to feed hogs now. About 25 per cent. of the corn will be safe by the 20th of this month. The movement of corn has fallen off this week on account of the rapid decline in prices. Seventy five per cent. of the oat crop has been threshed. Oats have been moved quite freely since harvest. The oat crop of 1892 is fully 50 per cent. less in the area referred to than that of 1891. While, of course, in the above important corn areas there will be corn enough to feed and probably some surplus, but everything now points to an unsatisfactory corn crop to handle this winter. Southern Illinois reports that the earliest corn will not be out of the way of the frost before September 15, and the late corn must have until October 1.

FALL SOWING.—In Central Michigan nearly all the plowing is done for wheat and about one-third sown so far. Southern Ohio reports that 50 per cent. of the ground is yet too hard to plow, and rains are greatly needed to put the soil in good condition. In Northern Ohio they have had rain, and plowing is advancing favorably. Seeding has commenced in Southern Indiana. In the Central and Northern portions of the state a small proportion of the land has as yet been plowed. Southern Illinois reports that the season for seeding is quite up to the average. It is a little dry, but there is sufficient moisture for plowing. Central Illinois reports that farmers have only just started plowing for fall wheat and rains are needed badly in order to get the ground in good shape before the seeding commences. Western New York reports that they have so far done a little fall plowing, and seeding will soon commence.

MICHIGAN.—The Michigan crop report, which was issued by the Secretary of State September 11, returns were received from 478 townships. Statements received from thrashers up to August 25 give the average yield of wheat at 14.83 bushels in the Southern counties, 15.37 in the Central, and 16.03 in the Northern. These figures indicate a total yield of about 23,500,000 bushels. In many instances wheat is reported badly shrunken and is thought to be of poor quality in all parts of the state. Farmers marketed 1,359,337 bushels in August, or 579,815 bushels less than in the same month last year. Oats will be above an average crop, about the same yield as last year being reported in the Southern section, and a greater yield in the Central and Northern counties. Potatoes are estimated to yield 55 per cent. of an average crop in the Southern, 70 in the Central, and 88 in the Northern counties. This is a better showing in all sections than last year. In Southern Michigan, if frost holds off during September, the state will make about three fourths of a crop of corn.

GOVERNMENT CROP REPORT.—The September average on the condition of winter and spring wheat as harvested is 85.3. The August average for spring wheat was 87.3, and the July condition of winter wheat was 89.6. The average decline since previous reports therefore exceeds three points. In the preceding ten years the condition was lower in 1883, 1885, 1887, 1888 and 1890. The average of ten years is 86. In the Middle states the quality is medium. Rust is reported to some extent. In the South the berry was generally plump and sound when harvested, but has been damaged somewhat by prevailing rains. The yield of Illinois wheat has generally met the expectation and is good in Southern Indiana, but disappointing in some districts of that state and Ohio. The forcing weather of June produced a large growth of straw in Michigan, while later conditions resulted in a small and shrunken berry. The yield in Southern and Western Missouri was somewhat better than was expected, though it was disappointing in other sections. Quality is excellent in Kansas and the quantity exceeds

expectation. In the spring wheat condition the crop is light in Wisconsin, and barley an average one in Minnesota. From 65 to 75 per cent. of the South Dakota crop was harvested the first of September, relatively small in yield, with a somewhat shriveled berry. A medium crop has been garnered on the Pacific coast. In Washington there was some improvement in August. The condition of other crops is as follows: Oats 78.9, rye 88.5, barley 87.4, buckwheat 89, potatoes 74.8, tobacco 79.9. This is a heavy reduction in everything except rye and barley.

GOVERNMENT REPORT ON CONDITION OF CORN.—The statistician of the Department of Agriculture reports a decline in the September condition of corn to 79.5 from 82.5 in August. The change is slight in the surplus corn states except in Kansas. The present condition is 79 in Ohio, 75 in Indiana, 70 in Illinois, 78 in Iowa, 82 in Missouri, 70 in Kansas, and 76 in Nebraska. In other states the average of condition is everywhere higher than the national average except in Michigan and Wisconsin. In comparison with September reports of the last ten years only three were lower, 70.1 in 1890, 72.3 in 1887, 76.6 in 1886. The present figures are between five and six points below the average of ten previous years. The crop is well grown and maturing rapidly without frost as yet in the Eastern states. In the Middle states drouth has injured corn, especially in New Jersey and Pennsylvania, reducing condition five points in each, while in New York it is only depressed from 80 to 79. In Delaware the last planted corn has been injured. In Maryland drouth has caused a reduction, while from South Carolina around to Texas high condition is well maintained, no figures falling to 90 except those of Mississippi and Florida. Rain in this region has interfered with cultivation, and in some districts rotting of the ears is reported. In Texas and Arkansas good yields are assured, and a fair crop is made in Tennessee. Corn has improved in Central Ohio and declined from drouth in the southern counties. A decided improvement is reported in Indiana. There has been injury from drouth in Michigan, Illinois and Kansas, and in less degree in Missouri and Iowa. The crop is late throughout the Northwest. No injury from frost is reported.

ERIE CANAL TRAFFIC FOR AUGUST.

More grain was shipped from Buffalo by the Erie Canal during the month of August than during any of the four preceding months of the present year. The rates received by the boatmen were also more satisfactory. In July the boatmen carried 3,591,072 bushels of grain and 3,193 barrels of flour; in August they shipped 4,601,518 bushels of grain and 14,205 barrels of flour, an increase over the preceding month of 1,010,446 bushels of grain and 11,012 barrels of flour. The enormous receipts of grain and flour at Buffalo during August (the largest for any month on record), and the partial paralysis of the railroads for a short time on account of the switchmen's strike, not only increased the shipments by canal but also enabled the boatmen to advance their rates. Thus the closing rate on wheat in August was 3 cents per bushel, as compared with 2½ cents in July. But the strikes did not benefit the boatmen as much as was expected. This was partly due to the higher rates asked by the boatmen and partly to the belief among shippers that the strike would not last long, as proved to be the case.

The receipts of grain (not including flour) by lake at Buffalo and shipments by rail and canal during August, with similar data for the same month in previous years, show the following results:

	Receipts.	Shipments	
		By Rail.	By Canal.
Wheat, bush.....	14,059,580	8,006,159	3,243,546
Corn, bush.....	3,166,730	2,203,600	275,496
Oats, bush.....	2,566,330	1,248,300	1,063,343
Barley, bush.....	21,000	19,133
Rye, bush.....	134,400	17,000
Totals, bush.....	19,927,040	11,496,059	4,601,518
1891, bush.....	19,656,690	11,853,517	6,645,600
1890, bush.....	8,452,010	2,762,484	4,405,170
1889, bush.....	12,140,410	3,856,452	7,187,790

In spite of the disturbing influences and the delay in traffic produced by the switchmen's strike, the railroads carried 2,390,659 bushels more of grain in August than in the preceding month.

Although there was considerable improvement in the grain traffic of the canal last month, the showing made so far this season has been poor as compared with previous years. From the opening of navigation on May 1 to September 1 the boatmen have carried only 15,691,215 bushels of grain, as compared with 17,679,900 bushels last year, 24,484,720 bushels in 1890 and 22,436,980 bushels in 1889. This decline in shipments of 6,745,765 bushels in 1892 as compared with 1889 is all the more startling in view of the fact that the receipts of grain (not including flour) at Buffalo show an increase of 26,109,535 bushels in 1892 over 1889. This heavy falling off in canal shipments has been brought about by the combination existing between the railroads and the "elevator pool" at Buffalo. As long as the "pool" shall be allowed to carry on its operations in open violation of state law, the canal will continue to lose its grain traffic.—*Commercial Bulletin, New York.*

A food exposition will be held at Madison Square Garden, New York, October 1 to 27.

Latest Decisions.

Damages for Non-Performance of Contract.

It is the rule that in cases of contracts wholly unperformed such damages as naturally result from the breach of the contract are presumed to have accrued to the injured party and may be recovered, and the measure of such damages in such cases should be the difference between the contract price and the reasonable cost of the work or thing at the usual and ordinary price.—*Richter vs. Meyer, Appellate Court of Indiana, 31 N. E. Rep. 582.*

Railroad "Carload" Construction.

The Supreme Court of Missouri held, in the recent case of *Ross vs. Kansas City, St. Joseph & Council Bluffs Railroad Company*, that where the term "carload," as used in the Missouri Revised Statutes, had been construed by the railroad commissioners as meaning, in the light of existing usage, ten tons instead of all that a car can safely carry, the construction was reasonable and just and would be upheld, especially where it had been acted upon long enough to have become a rule.

Remedies for Non-Payment of Purchase Money.

Where a written contract is made for the sale of anything, and there is a provision in the contract for the benefit of the seller for forfeiture or annulment thereof for non-payment, of the installments of purchase money, or any of them, the seller is not compelled to exercise his right of forfeiture or annulment, but may waive that right and recover upon the contract the purchase money.—*Bohart vs. Republic Investment Co., Supreme Court of Kansas, 30 Pac. Rep. 180.*

Rights of Partners on Accounting.

Where two partners invest unequal amounts in the firm business in the absence of agreement the one investing the greater amount is not chargeable on an accounting with taxes on the excess of his investment over that of the other, and where the salary of an employee has been fixed by contract with the firm, one member thereof cannot, without the consent of the other, after performance of the service called for by the contract, subject the firm to liability to such employee for additional compensation.—*Conn vs. Conn, Supreme Court of Oregon, 30 Pac. Rep. 230.*

Checks for Deposit.

A person deposited checks in a bank, indorsed by him "For deposit," and the checks were immediately credited to him on his pass book, though not in pursuance of any agreement to that effect. He had been a depositor in the bank for some years, but had no agreement that his checks should be treated as cash, or that he should draw against them before collection. The bank became insolvent before the checks were collected, and their proceeds passed into the hands of a receiver. No title passed to the bank except in trust and depositor by this transaction was entitled to the proceeds.—*Beal vs. City of Somerville, Circuit Court of Appeals, First Circuit, 50 Fed. Rep. 647.*

Warranty for Machines.

Where a purchaser orders a certain machine by letter, stating that it is to do specific work, and the seller answers, accepting the order, and stating, "You may rely on having a first-rate machine, which will do your work in a satisfactory manner," these last words are not mere words of commendation, but are to be construed as part of the contract, and constituting a warranty. And where a machine is purchased from an English manufacturer under a warranty that it will do certain work in America the measure of damages for breach of the warranty is the difference between the contract price of the machine and its value in America to the purchaser, including expenses incurred by the purchaser for alterations and changes made on the machine in order to get it to do the work for which it was purchased.—*Whithead v. Atherton Machine Co. vs. Ryder, Supreme Judicial Court of Massachusetts, 31 N. E. Rep. 736.*

Consignment—Insurance—Contract.

Judge Pennypacker of the Philadelphia Court of Common Pleas, recently held, in the case of the *New York Tartar Company vs. French et al.*, that in the absence of a contract or custom requiring it a consignor could not be held responsible for the value of goods which the consignees had requested him to insure, but which he had neglected to insure. The defendants ordered some goods of the plaintiff company, and requested the company to insure the consignment. This the company neglected to do, and the goods were lost by the foundering of the vessel carrying them. The defendants claimed that since the plaintiff company failed to insure there was no delivery. The court decided in favor of the plaintiff company, saying: "There was no provision in the contract requiring the plaintiff to procure the goods to be insured for the defendant's. There was no evidence of a custom of the trade making it a duty of vendors to get the goods insured, while the two occasions upon which the plaintiff complied with the request of the defendants to have the goods insured, taken in connection with the two occasions in which they were sent without

insurance, are insufficient to establish such a course of dealing between the parties as would make it obligatory upon the plaintiff to provide for having the goods insured."

EXPORTS OF WHEAT.

In July we exported 4,280,347 bushels of wheat to the United Kingdom, 1,023,396 to Germany, 24,197 to France, 1,957,111 to other countries in Europe, and 531,690 to British North America, against 3,442,129 to the United Kingdom, 437,272 to Germany, 3,745,742 to France, 1,438,210 to other countries in Europe, and 515,433 to British North America in the preceding July.

During the seven months ending with July we exported 32,379,917 bushels of wheat, valued at \$31,381,378, to the United Kingdom; 4,873,394 bushels, valued at \$4,714,683, to Germany; 10,942,184 bushels, valued at \$11,133,856, to France; 16,369,509 bushels, valued at \$16,170,846, to other countries in Europe; 2,476,986 bushels, valued at \$2,142,782, to British North America; 55,597 bushels to the Central American states and British Honduras; 4,324 to the West Indies and Bermuda; 51,547 to Brazil; 4,397 to other countries in South America, 8,326 to Asia and Oceania, and 69,059 to other countries; total, 67,234,240 bushels, valued at \$65,744,866; in comparison with 17,389,740 bushels, valued at \$16,897,171, to the United Kingdom; 701,159 bushels, valued at \$743,758, to Germany; 14,463,619 bushels, valued at \$13,628,507, to France; 6,600,955 bushels, valued at \$6,960,357, to other countries in Europe; 1,551,990 bushels, valued at \$1,563,908, to British North America; 33,101 to the Central American states and British Honduras; 158,796 to the West Indies and Bermuda; 217,323 to Brazil; 173,441 to other countries in South America; 19,598 to Asia and Oceania, and 23,367 to other countries, a total of 41,333,089 bushels wheat, valued at \$40,371,969, exported in the corresponding period of 1891, as reported by S. G. Brock, chief of the bureau of statistics.

EXPORTS OF CORN.

In July we exported 787,811 bushels of corn to the United Kingdom, 643,821 to Germany, 388,855 to other countries in Europe, 149,165 to British North America, 535,282 to Mexico and 117,379 to Cuba, against 1,171,224 bushels to the United Kingdom, 413,858 to Germany, 846,721 to other countries in Europe, 509,237 to British North America, 9,485 to Mexico and 25,870 bushels to Cuba in the month of July preceding.

During the seven months ending with July we exported 26,849,273 bushels of corn to the United Kingdom, 12,653,883 to Germany, 16,095,777 to other countries in Europe, 1,733,145 to British North America, 1,130,652 to Mexico, 90,745 to the Central American states and British Honduras, 588,383 to Cuba, 356,899 to the other West Indies and Bermuda, 54,970 to South America and 1,065 to other countries, total 59,569,596 bushels, compared with 7,430,509 bushels to the United Kingdom, 1,633,413 to Germany, 2,864,297 to other countries in Europe, 2,227,148 to British North America, 102,237 to Mexico, 166,009 to the Central American states and British Honduras, 140,555 to Cuba, 376,653 to the other West Indies and Bermuda, 276,287 to South America, and 9,887 to other countries, total 15,227,995 bushels, exported during the corresponding period of 1891.

This statement by S. G. Brock, chief of the bureau of statistics, shows that our exports to Europe, Cuba and Mexico have greatly increased. Of late, and since the last named country suspended its import duty on corn, the shipments thither have been even larger.



O. L. Mitton has moved from Lincoln to Waco, Neb., to take a position with a grain firm.

Aaron Ostrom will take charge of the Interstate Grain Company's elevator at Evansville, Minn.

Walter Ostrom of Evansville, Minn., will take charge of the "Erdahl Elevator" at that place this fall.

Thomas Tradewell has taken charge of the Pacific Elevator Company's warehouse at Gibbon, Minn.

John Hafner of Hector, Minn., has accepted a position with the Victoria Elevator Company at Miller, S. D.

Charles M. Harrington of the Van Dusen-Harrington Grain Company of Minneapolis, Minn., was at a recent meeting of the directors of the Commercial and Athletic Club elected president without a dissenting voice.

A. H. Smith, formerly grain buyer at Ashby and at Fisher, Minn., was recently promoted to the position of superintendent for the Northwestern Elevator Company, on the Fergus Falls Division of the Great Northern Railroad.

The receipts of rye at Chicago are not up to the quality of last year.



The elevator at Bloom, N. D., was recently burned.

Chatham, Baker & Co.'s grain warehouse at Kendrick, Idaho, was recently burned.

George Shults' grain elevator at Cambridge City, Ind., was recently burned. Loss \$5,000.

W. R. McNeil, grain dealer and grocer at Red Mountain, Colo., suffered loss by fire recently.

John Hicks, grain dealer and store keeper at St. Johns Mich., suffered \$2,000 loss by fire recently.

The grain elevator of Chamberlin & Griffith at Hoopes-ton, Ill., was burned September 2. Insurance \$9,200.

N. B. Pott, dealer in grain and flour at Fonda, Ia., lost his elevator and mill by fire August 22. Loss \$10,000, partly insured.

The elevator of Thorpe Bros & Co. at Ada, Minn., was badly damaged by fire on the night of August 23. Loss \$5,000, insured.

Incendiaries set fire to the elevator of Zeehes & Ross at St. Charles, Minn., Aug. 18, but the fire was put out in time to prevent loss.

Zachariah Lovett's grain warehouse at Shreve, O., was burned August 8. Loss \$2,000; insurance \$1,300. Sparks from a locomotive started the fire.

Carl Elmore, employed in George R. Scott's elevator at Albion, Neb., was struck by the flying pieces of a broken pulley recently. His head was injured.

The elevator of the Davenport Glucose Co., at Walnut, Ia., were burned Aug. 15, with 1,000 bushels of corn and 2,000 bushels of oats. Loss \$10,000; insured.

Two elevators at Westport, S. D., were burned August 15. Lightning caused the fire. The houses were owned by Messrs. Allen, Bagley & Cargill of Minneapolis.

The grain elevator at Eau Claire, Mich., on the Big Four Railroad was burned on the morning of August 30. Loss on building \$10,000. The house was nearly full of wheat.

The grain elevator and brew house of Falk, Jung & Borchert at Milwaukee, Wis., were burned August 30, with 140,000 bushels of malt valued at \$100,000. Loss \$250,000.

J. H. Harris' 20,000 bushel elevator at Frederick, Kan., was burned at 3 o'clock A. M. August 19, with 3,000 bushels of wheat. The fire is supposed to have started in the engine room. The building was new, and several carpenters who were putting on the finishing touches lost their tools.

The elevator at Newman, Ill., owned by Fred P. Rush & Co. of Indianapolis, Ind., was burned on the afternoon of August 18, with 1,000 bushels of oats and 5,000 bushels of corn. The fire started in the top of the building from a hot box. Loss on grain \$4,000, on building \$7,000; insurance \$7,000.

Counselman & Co.'s big elevator at South Chicago caught fire on the evening of August 25, but fortunately the steamer R. E. Shuck, loading grain alongside, had steam up and its fire hose was used together with the apparatus in the elevator with such effect that the loss amounted to less than \$100.

Charles W. Templer, vice-president of the Kansas Grain Company, and only son of T. J. Templer, the grain man, was drowned at Cheney, Kan., August 11, while bathing in the river. Getting out of his depth he was borne by the current into deep water. The untimely death of the young man was a hard blow to his father, and deplored by numerous friends in Kansas City.

OUR CARD BASKET

We have received calls from the following gentlemen prominently connected with the grain and elevator interests, during the month:

W. J. Clark of W. J. Clark & Co., Salem, O.

Howard Evarts Weed, Agricultural College, Mississippi.

B. F. Ryer of the Simpson-Robinson Company, Minneapolis, Minn.

G. M. Robinson, President Charter Gas Engine Company, Sterling, Ill.

The *London Financial Times* asks how it is possible that anyone can expect a rise in prices to follow the narrowing of a market, which is exactly what an anti-option law would mean and cause. It states as an incontrovertible fact that the commercial community would not step in and carry the surplus produce for the farmer unless it "had a free hand to sell futures" so as to institute protection against loss.

NEW EXPORT BILL OF LADING FOR GRAIN.

Some time ago a meeting was held at Mark Lane Market to receive the draft of a new bill of lading for American grain, which a special committee had been appointed to draw up. The chair was taken by Mr. Aste, and Mr. Seth Taylor then moved that "the bill of lading before the meeting be adopted by the trade, and that buyers sign an undertaking to insist upon the insertion of a clause in their contracts for such bills of lading in shipments to be made on and after September next." This motion was seconded and adopted. The following is the text of the new bill:

SHIPPED, in good order and condition, by.....
in and upon the good Steamship.....
now lying in the port of.....
and bound for LONDON, with liberty to call at.....
.....
being marked and numbered as per margin (weight, quality, contents and value unknown), and to be delivered in like good order and condition at the port of LONDON, or so near thereto as she may safely get unto.....
or to his or their assigns, he or they paying freight and prime (if customary), in cash without discount on the said grain on delivery at the rate of.....
.....with prime as per margin.

It is agreed that the ship shall have liberty to sail with out pilots; to tow and assist vessels in distress; to deviate for the purpose of saving life or property; to convey goods in lighters to and from the ship at the risk of the owners of the goods, but at ship's expense; and in case the ship shall put into a port of refuge for repairs, or be prevented from any cause from proceeding in the ordinary course of her voyage, to forward the goods to their destination by any other steamship.

It is agreed that the shipowner shall not be liable for loss or damage occasioned by the act of God, the perils of the seas, rivers or other navigable waters, by fire from any cause or wheresoever occurring, by barratry of the master or crew, by enemies, pirates or robbers, by arrest or restraint of princes, rulers or people, by riots or other civil disturbances, by explosion, bursting of boilers, breakage of shafts, or any latent defect in hull, machinery or appurtenances, it not resulting in any case from want of due diligence by the owners of the ship or any of them, or the ship's husband or manager, by collisions, stranding, or other accidents of navigation of whatsoever kind, even when occasioned by the negligence, default or error in judgment of the pilot, master, mariners, or other servants of the shipowner; and that, while the shipowner is not to be liable for loss or damage occasioned by causes beyond the control of himself and his servants, nothing herein contained shall exempt him from liability to pay for damage to cargo occasioned by bad stowage, by improper or insufficient dunnage, by absence of customary ventilation, by improper opening of sea cocks, valves, sluices or ports whilst any goods are on board the ship by refrigerator or cattle damage, or by any causes other than those in respect of which he is by this bill of lading specially protected, provided always that, if the ship shall be stranded, sunk, or burned, or in collision, the shipowner shall not be liable for any loss or damage which can be recovered under an ordinary Lloyd's marine policy of insurance.

The shipowner is not liable for loss or damage occasioned by decay, putrefaction, rust, sweat, change of character, drainage, leakage, breakage, or any loss or damage arising from the nature of the goods or the insufficiency of packages; nor for land damage; nor for the obliteration or absence of marks or numbers, nor for any loss or damage caused by the prolongation of the voyage and not attributable to defects in the ship or machinery.

The steamer, while detained at any port for the purpose of coaling, is at liberty to discharge and receive goods and passengers.

Nothing herein contained shall relieve the owner from the warranty of seaworthiness, but any latent defects in the hull, or machinery shall not be considered unseaworthiness unless the same could have been discovered or prevented by due diligence on the part of the owners or any of them, or of the ship's husband or manager or other servant entrusted with the charge of the ship or her machinery.

1.—Gain if clear is to be applied for within 24 hours of ship's docking or otherwise immediately it becomes clear, failing which the master or agent will land or put it into lighters at the risk and expense of the consignees, but any grain taken out for ship's convenience to be given up free within 72 hours from the time of such taking out.

2.—Any grain taken out before or after usual dock hours (whether craft are in attendance or not) to be given up free to consignees applying for same within 72 hours from such taking out.

3.—The goods to be weighed at time of discharge, either on deck or quay by the dock company.

4.—Working out charges (including weighing) for grain in bulk and for ship's bags if payable by the consignee to be at the rate of:

1 9 per ton on wheat, maize and heavy grain.

1/11 " Barley.

2 " Oats.

5.—Neither party shall be liable for any interference with the performance of the contract herein contained which is caused by strikes or lock-out of seamen, lightermen or shore laborers, whether partial or otherwise, nor for any consequences of such strikes or lock-out.

6.—Full freight to be paid on damaged grain, but no

freight is to be paid on any increase in bulk or weight caused by the absorption of water.

7.—If on sale of the grain at destination for freight and charges, the proceeds fail no cover said freight and charges, the carrier shall be entitled to recover the difference from the shipper.

8.—In the event of claims for short delivery when the ship reaches her destination, the price shall be the market price at the port of destination on the day of the ship's entry at the custom house, less all charges saved.

9.—In case the grain shipped under this bill of lading forms part of a larger bulk, each bill of lading to bear its proportion of shortage and damage, if any.

10.—It is agreed that this contract shall be governed by the law of England, with reference to which law this contract is made.

In case of quarantine at any port, the goods destined for that port may be discharged into quarantine depot, hulk or other vessel, as required for the ship's dispatch. Quarantine expenses upon the said goods of whatever nature or kind shall be borne by the owners thereof.

The master or agent shall have a lien on the goods for freight and payments made, if any, or liabilities incurred in respect of any charges stipulated herein to be borne by the owners of the goods.

The ship shall not be liable for incorrect delivery of packages unless each of them shall have been distinctly marked by the shippers before shipment.

General average payable according to York Antwerp rules, 1890.

Any dispute arising out of the contract contained in this bill of lading, or in relation thereto, and whether between the shipper or any consignee or indorsee of the bill of lading on the one part and the person by whom or on whose behalf the same is signed on the other part, shall be referred to the decision in London of two commercial arbitrators (one to be appointed by each party) and their umpire, whose decision shall be final, and the provisions of the arbitration act, 1889; and any substituting or amending act shall be applicable to this submission and any reference thereunder.

The owner and consignee of the goods and the shipowner mutually agree to be bound by all of the above stipulations, exceptions and conditions, notwithstanding any custom of the ports of loading or discharging to the contrary.

In witness whereof the master or duly authorized agent of the said ship hath affirmed to.....bills of lading, all of this tenor and date, one of which bills being accomplished the others to stand void.

Dated in.....this.....day of.....189....

BOUGHT FIFTY ELEVATORS.

The Central Elevator Companies' system of elevators consisting of about fifty grain elevators along the Minneapolis & St. Louis Railroad has been purchased by F. H. Peavey, the well-known Minneapolis elevator man. The deal is the largest sale of elevators that has occurred for years, the cash consideration being \$160,000.

The elevators had capacities varying from 15,000 to 40,000 bushels, but the "Central Elevator" in Minneapolis has a capacity of 1,000,000 bushels.

The Central Elevator Company has been in existence for years. Its officers were Minneapolis men, the president being W. W. Huntington, while A. R. Potter was secretary and treasurer. Until his death, about a year ago, Enoch Holmes was the vice-president of the company. The capital stock of the company was \$250,000 divided as follows: A. R. Potter \$50,000, W. W. Huntington \$50,000, estate of Enoch Holmes \$75,000, Gustav Sunwall \$75,000. The latter has been manager for years. By the new deal the ownership passes out of the hands of the above parties into the hands of F. H. Peavey, who will be the sole owner. He will retain Mr. Sunwall as manager, however. The consideration, which is entirely cash, is \$160,000.

TRAFFIC ON THE ERIE CANAL.

Traffic on the Erie Canal, once the greatest thoroughfare of the state, is now in such condition as to cause those who are dependent upon it for a living to feel that if it does not soon improve there is nothing to look forward to but ultimate ruin. Boatmen are tying up their boats and applying for work in the cities and at the various farms along the waterway. Few, if any, have made expenses this season. It is impossible to get rid of a canal boat now at any figure, as they are a source of expense, and not of profit, so the only thing to do is to tie up and seek other fields of labor. The number of canal boats clearing from Buffalo from the opening of navigation to July 1 last year was 1,661 while the figures for the same time this season are only 1,367. Grain shippers say the railroads handle the business almost as cheaply as the canal and give much better service. Old canal boatmen say there is but one thing that will save the boatmen from ruin, and that is to deepen the canal so that larger loads might be carried. Unless this can be done, they say, there is little hope of bringing the canal business to a paying basis. The outlook is exceedingly discouraging. —Wall Street Daily News.

If you desire your grain delivered more promptly at destination sign "A Protest, A Petition" published in this issue.

MINNEAPOLIS LEADS.

The crop year ending August 31 was a year of big wheat receipts in all receiving cities, and especially in Minneapolis, which leads them all as the world's greatest primary wheat market. Almost 72,000,000 bushels were received in Minneapolis, as against 52,000,000 bushels for the preceding year, and 43,000,000 bushels for 1889-90. Prior to 1890, 1877 was the biggest year ever known. Last year's receipts were regarded as exceptionally large. But 1892 is the hanner year "by a large majority."

Last year Duluth and West Superior together received what Minneapolis did the year before. Chicago increased her shipments over the previous year by 18,000,000 bushels, coming up to 44,000,000, while Milwaukee doubled her amount of 7,000,000 of a year ago to 15,000,000 this year. Of the 72,000,000 bushels received here, only 26,000,000 bushels were shipped out, the balance being used in the mills.

The receipts and shipments at Minneapolis during the twelve months ending August 31 as compared with the preceding crop year were as follows:

	RECEIPTS.		SHIPMENTS.	
	1891.	1892.	1891.	1892.
Wheat.....	51,703,955	72,023,160	16,231,070	26,060,530
Corn.....	1,900,890	2,958,235	539,220	1,219,300
Oats.....	3,546,160	5,154,190	1,986,120	3,022,880
Barley.....	506,320	1,606,490	487,230	1,119,090
Rye.....	139,730	261,570	125,220	261,570
Flaxseed.....	796,530	1,648,750	514,900	830,020
Flour.....	92,397	9,126,110

HAY FOR FRANCE.

Recent mail advices reported a great shortage of hay on the continent of Europe, owing to the dry weather experienced there during the past season; and several inquiries have been received from Antwerp and other Continental ports, regarding the possibility of Canada being able to supply a portion, at least, of the shortage on the other side. This has resulted in the sale of fifty tons of Montreal pressed hay by Messrs. Marsan & Brosseau to a firm in Paris, at a very good price, the lot being shipped by the steamer "Gimm" to Antwerp. Other inquiries have also been received from Antwerp and Rouen for cargo lots; but the great difficulty will be in obtaining freight for complete cargoes. Still, considerable quantities can be shipped in part cargoes, which will relieve this Province of a portion of its superabundant crop, and it is to be hoped that the above lot, which is the first shipment of hay from this port to Paris, will be the commencement of a large export trade. In order to work up this new business Messrs. Marsan & Brosseau are sending a representative to the other side, which, it is expected, will result in the disposition of a large quantity of Canadian hay on the continent of Europe. —Trade Bulletin, Montreal.

Miscellaneous * Notices.

POSITION WANTED.

A position wanted in a grain elevator where a reliable man is needed. Ten years' experience in the running of elevator machinery and the handling, grading and mixing of grain. Fully competent to take entire charge. Best reference as to character and ability. Address

M. S., care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

PARTNER WANTED.

Not having sufficient capital to conduct my grain business properly, I will sell a one-half interest in my steam elevator, located in splendid grain section. Am doing a prosperous business. Party must have \$3,000 to \$4,000 cash; \$1,800 will buy one-half interest in elevator. Address

ELEVATOR, Box 1031, Sioux City, Ia.

DeMUTH'S CIPHER BEAM DOUBLE ENTRY SYSTEM.

This new device can be attached to any hopper scale, large or small, and as it does not come in contact with any part of the scale proper, no change in the sealing of your scale is necessary. Be sure your weights are correct, then go ahead. Do not be in doubt any longer as to where the mistakes happen. If you know your scale is reliable, the next thing to know is that your record is correct. How are you to know this? Make a double entry of your weights. That is all. That is what your bookkeeper does. Why shouldn't your weighman do it? Write for prices and explicit directions for ordering. Address

J. A. DeMUTH, Oberlin, O.

SAMPLE ENVELOPES.

For mailing samples of grain, seeds, wool, feed, etc. Safest made.

2 oz. size, 3x5	\$ 80 cents per 100
4 " " 4x6	90 " " "
6 " " 4 1/2 x 7	1.10 " " "
8 " " 5x8	1.25 " " "

Special prices, large lots. Printing, 35 cents per 100. Address C. L. BAILEY & Co., East 24th street, Chicago.

DIRECTORY OF GRAIN DEALERS.

Kingsley's Directory is the only complete work containing the name and address of every firm engaged in the following lines of business: Grain, milling, flour and feed, hay and straw, butter and eggs, fruit and produce, malting, brewing, distilling and poultry. New edition, thoroughly revised, 1891. Over 500 pages octavo, substantially bound in cloth. Indispensable to those who wish to reach the lines of business named above.

Price, \$3.50. Sent postpaid on receipt of price. Address LEE KINGSLEY & Co., Syracuse, N. Y.

FOR SALE.

GRAIN ELEVATOR.

A grain elevator in a fine grain country for sale. Address

CHAS. NOBBE, Farmersville, Ill.

NEBRASKA ELEVATOR.

Will sell my elevator, in good location; good house; good trade; good coal trade; good live stock trade, and good reasons for selling. Am the only dealer here. Call or write. Address

V. E. CHAMBERLIN, Powell, Neb.

SECOND-HAND MACHINES.

One No. 3 Barnard & Leas Warehouse Dustless Wheat Separator, and one No. 5 Excelsior Oat Clipper, Separator and Grader combined, both machines in good condition about as good as new, for sale cheap. Address

IRVING W. FOX, Rochester, Minn.

RUBBER BELT CONVEYOR AND ATTACHMENTS.

A nearly new forty-inch, four-ply, rubber belt conveyor, 125 feet long, including iron driving and tail pulleys, iron concave rollers, three iron concentrators, journal boxes, etc., all complete. Will be sold cheap. Address

MANN BROS. & Co., Buffalo, N. Y.

ELEVATOR FOR SALE.

I will sell a finely equipped grain elevator with good trade and moderate competition, in one of the best grain towns in Eastern Illinois, having capacity of 60,000 bushels grain, and conveniently operated by Charter Gas Engine, and all grain can be cleaned and weighed. Address

A. D. HARROUN, Wa'seka, Ill.

SITE FOR ELEVATOR.

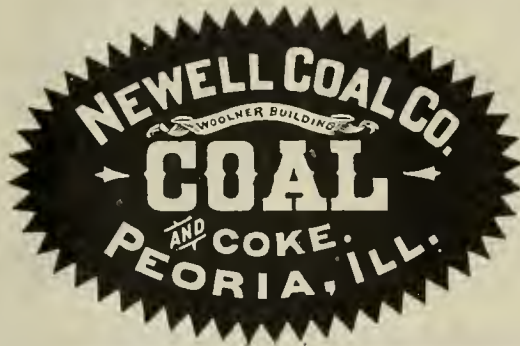
I own a valuable piece of trackage property in the city of Omaha on the Burlington & Omaha River Railroad, especially adapted for elevator purposes. The ground measures 200 feet front, 303 feet depth at one end and 152 feet depth at the other. I will sell on easy terms, part cash and balance mortgage, or lease for term of years to good parties on an appraisement. Address

L. C. NASH, Room 605 Bee Building, Omaha, Neb.

STEAM MILL.

To close an estate I will sell at a great bargain a steam roller mill with 75 barrels' capacity, 2 burrs, 4 sets 6x15-in. Stevens Rolls and all machinery as good as new. Storage capacity 10,000 bushels. Built in fall of 1889. No competition in grain. Located on the Lake Erie & Western and Chicago & Grand Trunk railroads in La Porte Co., Ind., sixty miles east of Chicago and in one of the best wheat-growing sections of the state. Remember, this property *must* be sold. Address

S. S. BOSSERMAN, Admr., La Porte, La Porte Co., Ind.

ORDER YOUR COAL FROM

FOR SALE.

THREE GRAIN ELEVATORS

In Western Iowa on C. & N. W. R. R.

MARTIN D. STEVERS & CO
COMMISSION MERCHANTS,
218 La Salle St., - CHICAGO.

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Robert McKnight & Sons,
Commission Merchants,

—AND DEALERS IN—

FLOUR, GRAIN AND FEED,
Nos. 2106 & 2108 Market St., PHILADELPHIA.

REFERENCES: { Merchants' and Third National Banks, PHILADELPHIA.

ESTABLISHED 1866.

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For the Sale of Wheat, Corn, Rye, Barley, Oats, Hay, Mill Feed and Seeds, Etc.

67, 68 and 69 Mitchell Building, 99 West Fourth Street, CINCINNATI, OHIO.

Refer to National Lafayette Bank.

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ECKERT, WILLIAMS & CO.,
WHOLESALE COMMISSION

And Dealers in Corn, Oats, Flour, Mill Feed, Hay, Etc.

Liberal Advances Made on Consignments.

Office and Warehouse, 309 & 311 Lake Ave., DULUTH, MINN.

TELEPHONE 333-1.

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Grain for Seed, Feed and Milling.

E. R. ULRICH.

E. R. ULRICH, JR.

E. R. ULRICH & SON,
Western Grain Merchants
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MIDDLETOWN, N. Y.,

BUYS Corn, Oats, Feed in Bulk or Sacked, Grass Seeds, Baled Hay, Straw and any salable Produce in CAR LOTS.

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A. B. TAYLOR & CO.,

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PATTERSON & EVANS,

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SEEDS.

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Do You Buy and Sell Clover, Timothy, and Other Grass Seeds? Write us, we are Dealers.

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REFERENCE—The Ohio Valley National Bank.

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Grain and Elevators.

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J. H. VANNERSON. Established in 1870. J. W. HILLIS.

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L. BARTLETT & SON,
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Cash advances made. Daily Market Report mailed free. Connections in all the leading foreign markets ordering daily. Grain and Seeds of every grade.

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OF ALL KINDS.
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High in Grade.
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Send for Pamphlet.
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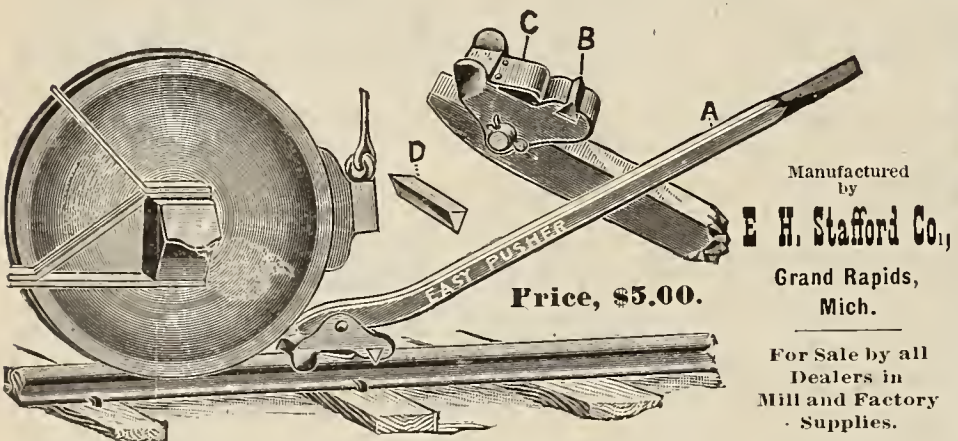
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QUAKER CITY GRINDING MILL
For CORN and COBS, FEED and TABLE MEAL. Send for all mills advertised. Keep the best and return all others.
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Dealers in Timothy, Clover, Flax, Hungarian, Millet, Red Top, Blue Grass, Lawn Grass, Orchard Grass, Bird Seeds, &c.
Warehouses: 115, 117 & 119 Kinzie St. POP CORN.
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Leather, Cotton, Rubber
BELTING
Elevator Buckets, Bolts, Mill Irons, Etc.
Prices Close, and Quality the Best.
THE CASE MFG. CO., Columbus, O.

We have dropped the "Gilbertson's Old Method" brand of roofing plates, therefore we now withdraw our guarantee from same.

- Our reasons are as plain as A. B. C.
- A** We could not act in good faith with our customers had we accepted the propositions made to us by the maker with a view to equalize the increased cost brought about by the advanced duty.
 - B** Numerous complaints and letters received by us from our customers positively assert that the quality of this Brand is not now what it used to be.
 - C** After careful investigations we find we can make a much better, and a heavier and more evenly-coated plate in our own works in Philadelphia, than we have ever imported.
- Hence, our heaviest coated, guaranteed Roofing Plate will now be the "MERCHANT'S OLD METHOD," MADE AND GUARANTEED BY
New York, Chicago, London, PHILADELPHIA, July 6, 1892. Yours respectfully, **MERCHANT & CO.**

YORK FOUNDRY & ENGINE CO., YORK, NEB.

Manufacturers of all kinds of

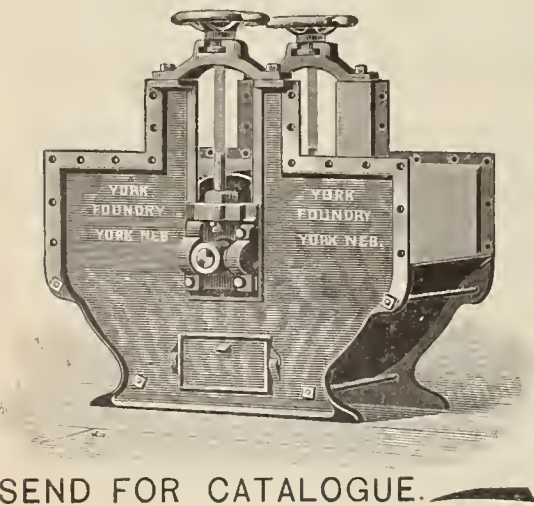
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COMPLETE OUTFITS CARRIED IN STOCK,

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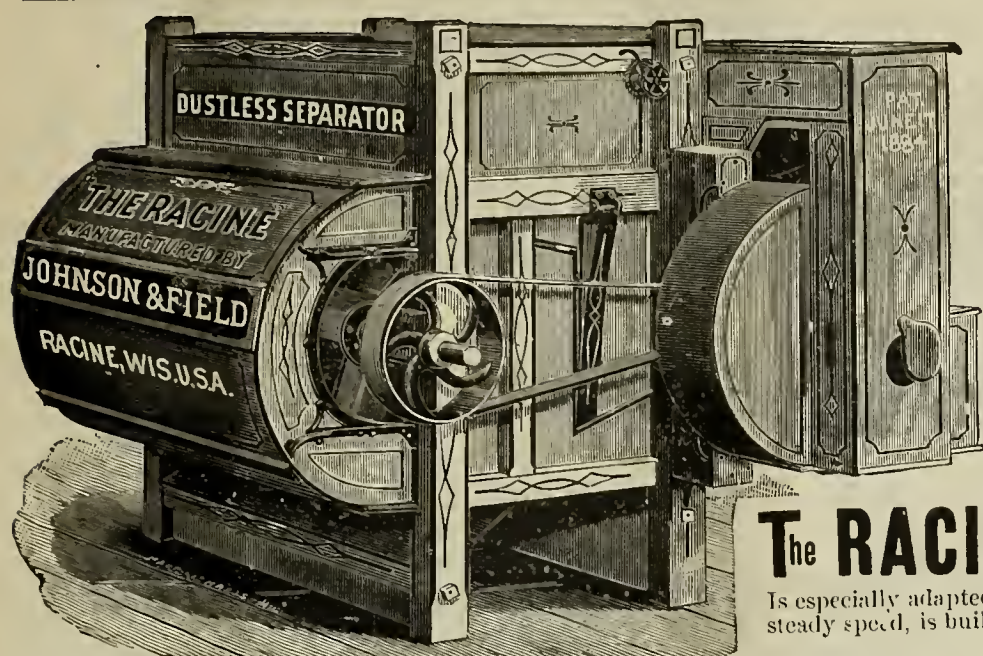
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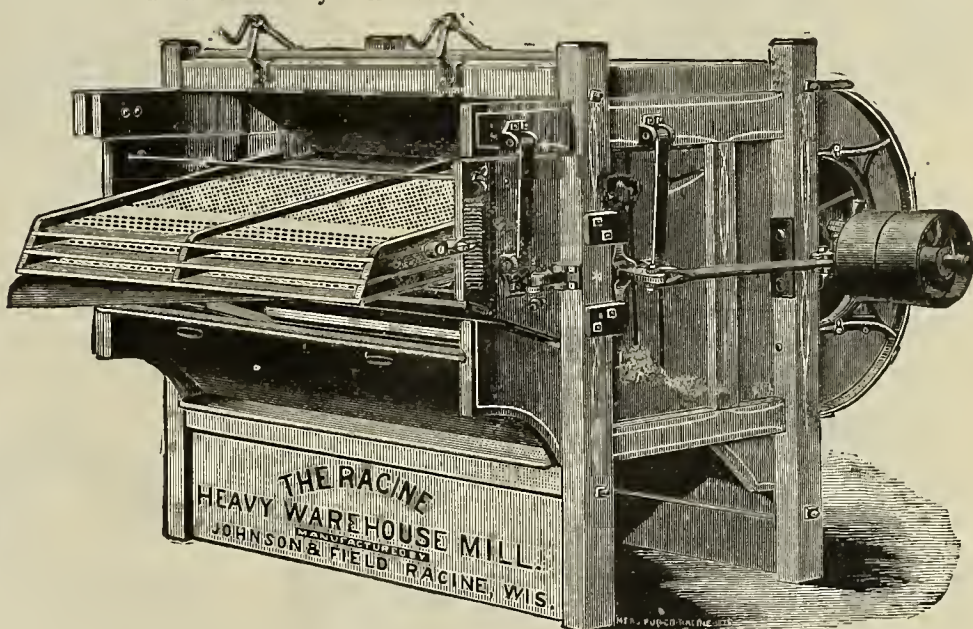
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Than any other machine offered for similar purposes and **Light Running, Large in Capacity, Perfect in Separation** and with **Great Strength and Durability.** These machines have no equal. Adopted and Indorsed by many of the largest Mills and Elevators in the country.

Made in different sizes to meet different requirements.

The RACINE HEAVY WAREHOUSE MILL

Is especially adapted for horse power use, is supplied with **PATENT GOVERNOR PULLEYS**, has an even and steady speed, is built extra heavy and bolted throughout. This machine has large capacity and is more durable than any other Warehouse Mill made.



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GAS OR GASOLINE FOR FUEL.

No Engineer! No Boiler! No Fire! No Smoke! No Ashes! No Danger!
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The "Best in the World."

Elevator Supplies of All Kinds a Specialty.

We are the Pioneer Elevator Builders of the West, and claim priority in the building of Cheap Elevators with Increased Conveniences. Don't BUILD until you get our Plans and Prices.

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Steel and Iron **ROOFING** Painted or Galvanized.

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Roll Cap Roofing,
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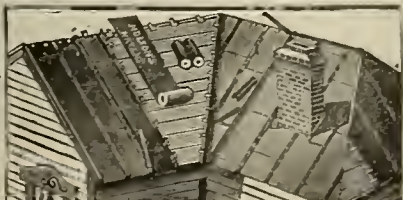
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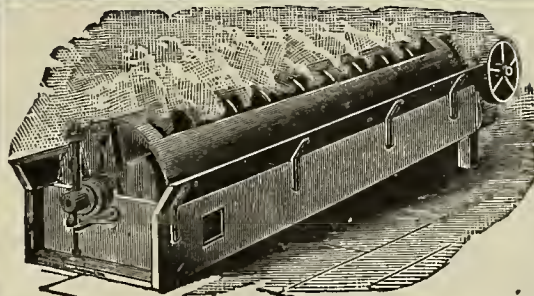


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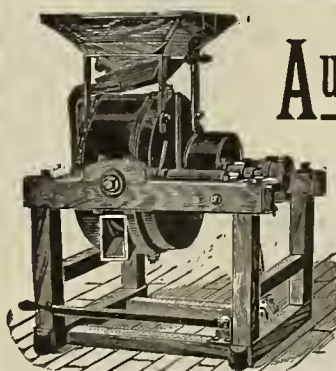
STEAM DRYER



For Cornmeal, Hominy, Buckwheat, Rice, and all kinds of Cereal Products; also Sand and Coal dust, etc.

Drying Cylinder made entirely of Iron. The machine has few parts and is not liable to get out of order. Automatic in its operation, requiring no attention. Double the capacity of any other Dryer sold for same price.

USED AND RECOMMENDED BY LARGEST AND BEST MILLS.



Automatic Adjustment Mill.

The adjustment is positive and automatic, utilizing every part of the grinding surfaces. Can be started or stopped at pleasure, without stopping the power. Is dressed without taking the shaft out of its boxes, or the belt off the pulley.

Comprises all Recent Improvements for Producing Goods at Lowest Cost.

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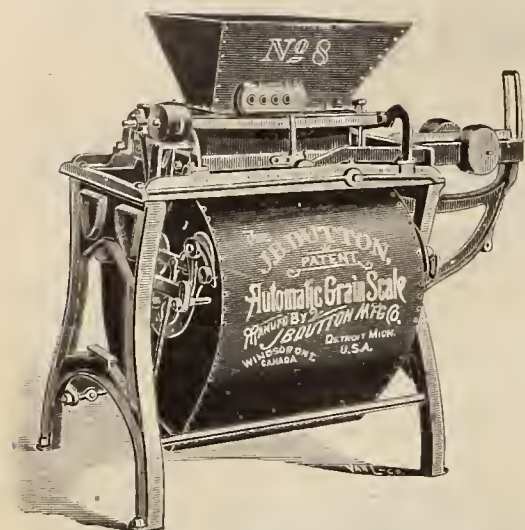
C. D. HOLBROOK,

DEALER IN

Grain Elevator Machinery and Supplies

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SPECIALTIES: Steam and Gas Engines, Car Pullers, Oat Clippers, "Automatic" Power Grain Shovels, Improved Excelsior Combined Elevator, Separator for all kinds of Grain, Double and Quadruple Flax Reels, Combination Flax and Grain Cleaners, Improved Cockle Machines, Carry in Stock full line of Shafting, Hangers, Pulleys, Sprockets, Elevator Boots, Tanks, Link and Rubber Belting, Farm and Warehouse Fanning Mills, Sweep, Overhead and Tread Horse Powers, Extras of all kinds for Horse Powers, Hand and Power Corn Shellers and Feed Mills, Platform, Wagon and Elevator Scales, Flexible Loading and Shipping Spouts, Steel Scoops, Pinch Bars, Grain Samplers, Grain and Seed Testers, Bag Holders, Bag Trucks, Etc.



J. B. DUTTON'S Patent Automatic Grain Scale,

FOR USE IN
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ACCURATE AND RELIABLE AT ALL TIMES.

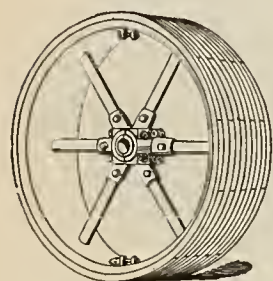
SCALES SENT ON 30 DAYS' TRIAL.

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Conveying, Elevating & Power Transmission Machinery.

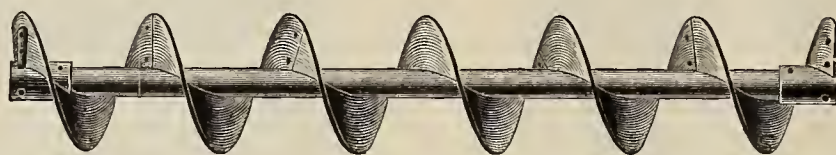


"South Bend"
Wood Split Pulleys,
With Iron Hubs
and Iron Bushings.
Will Not Slip on
Shaft. No Danger
From Fire.

H. W. CALDWELL & SON CO.,

GENERAL MACHINISTS,

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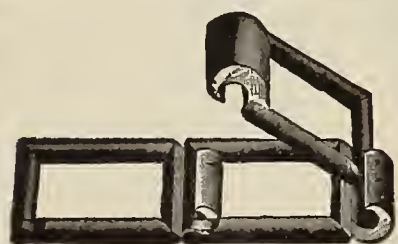
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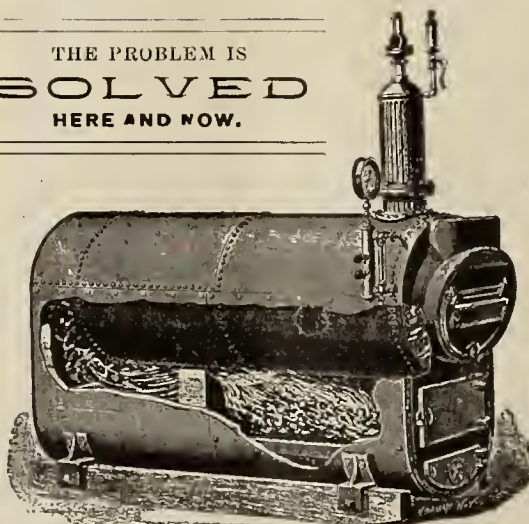
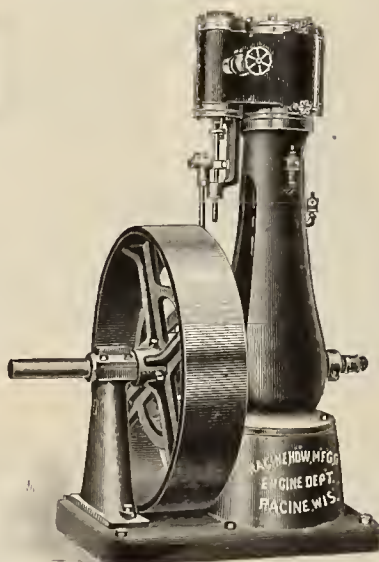
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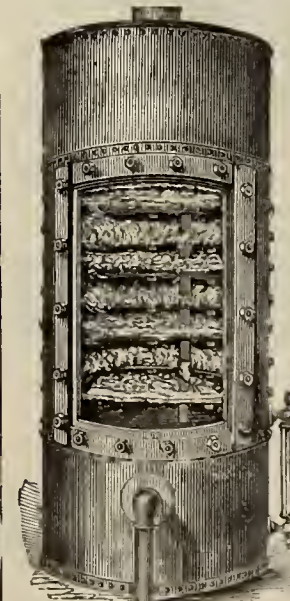
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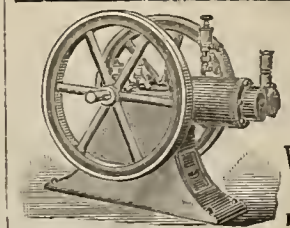


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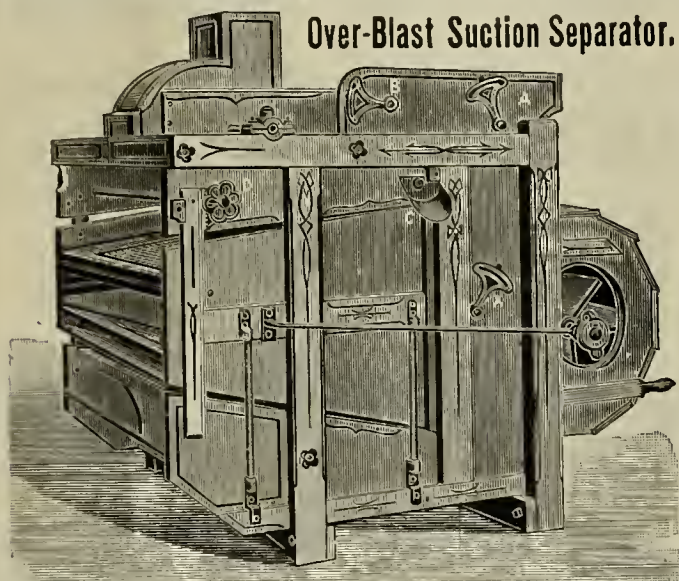
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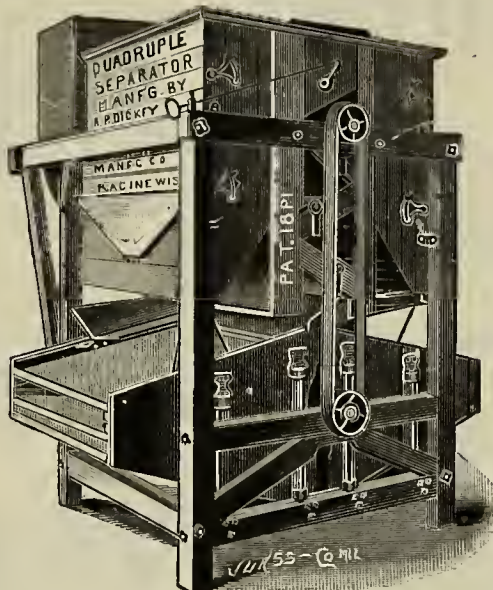
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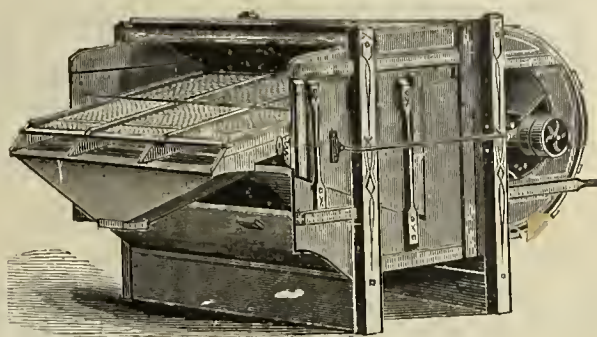
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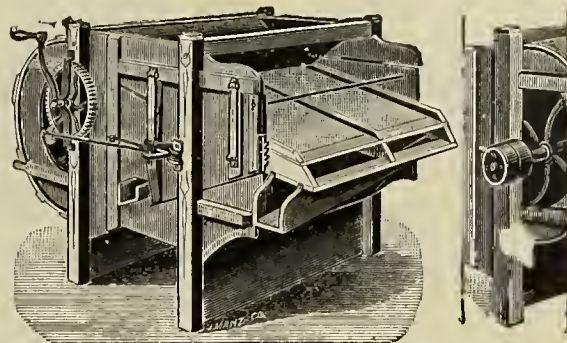
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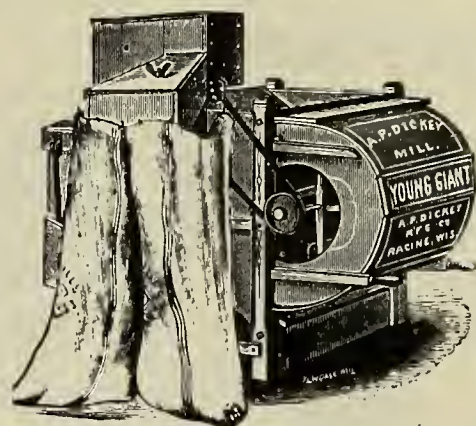
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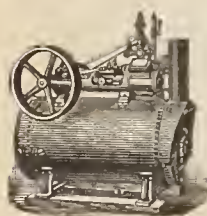
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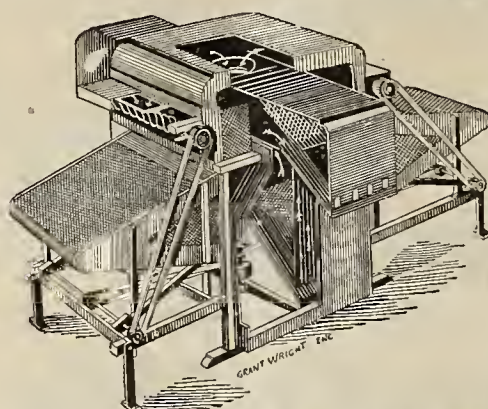
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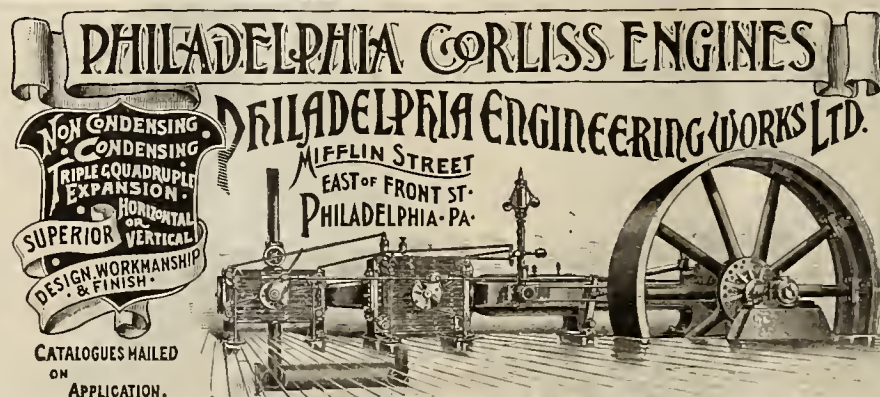
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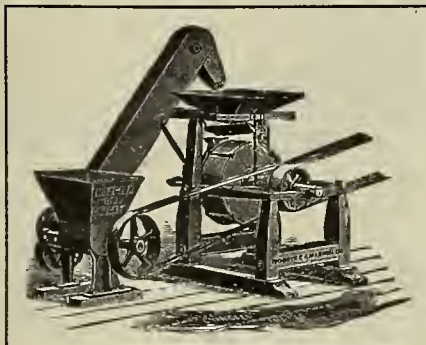
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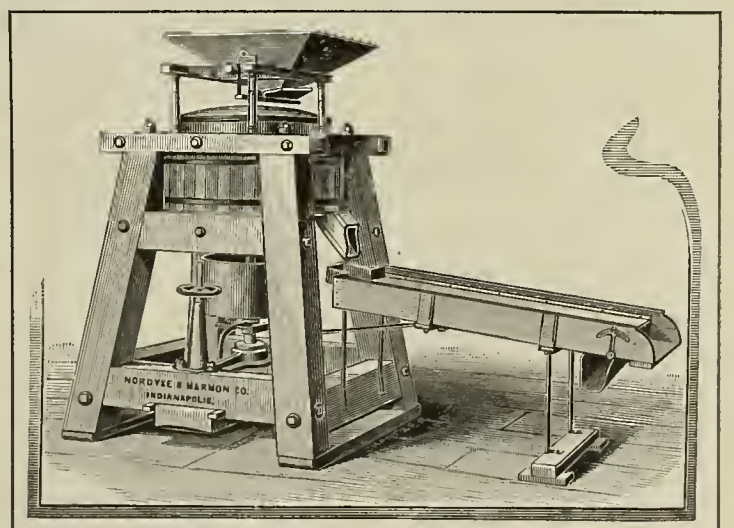
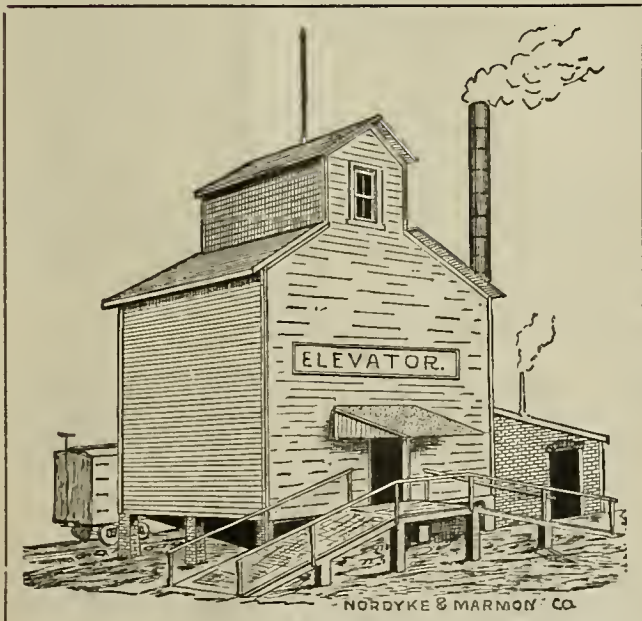
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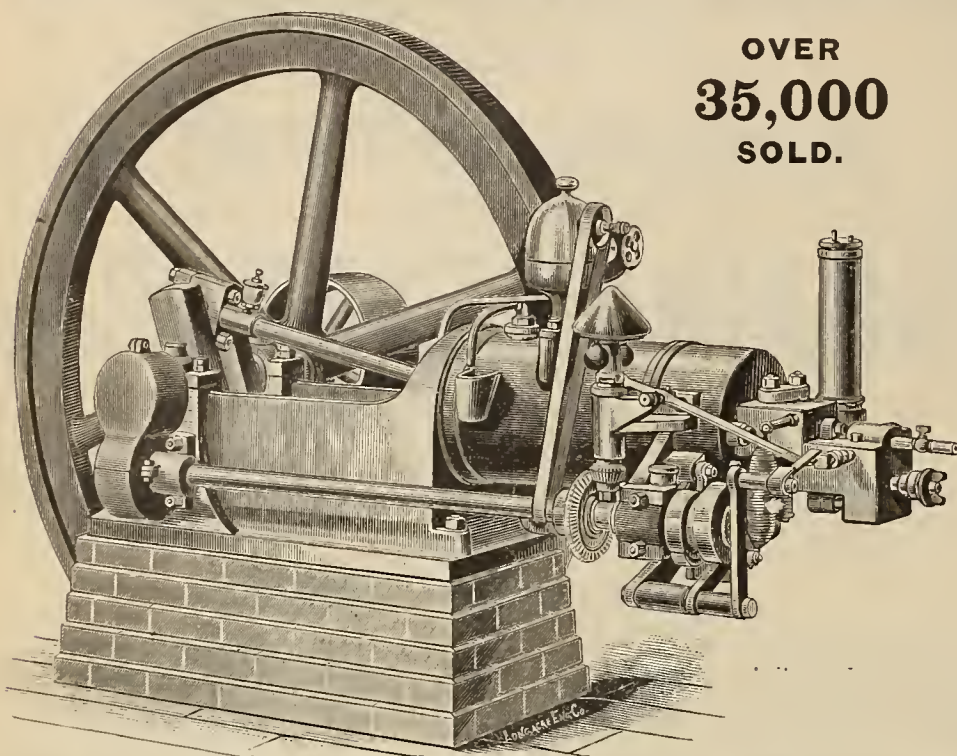
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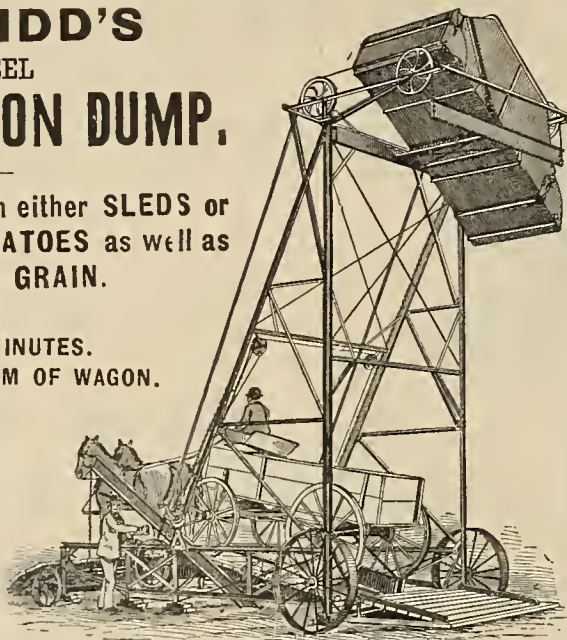
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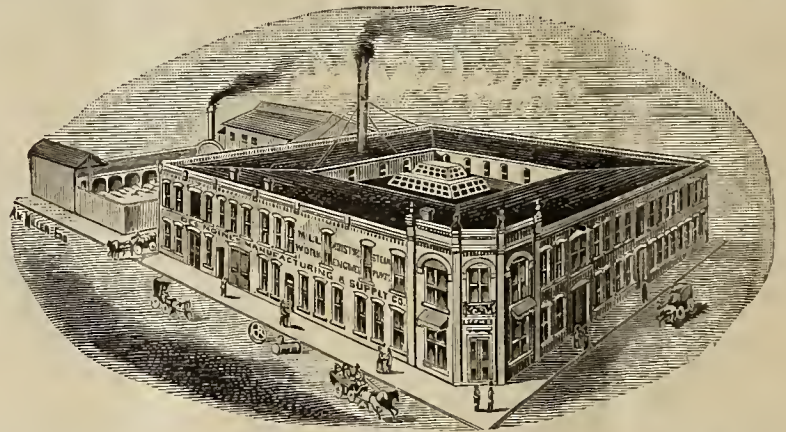
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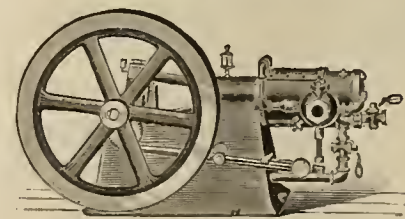
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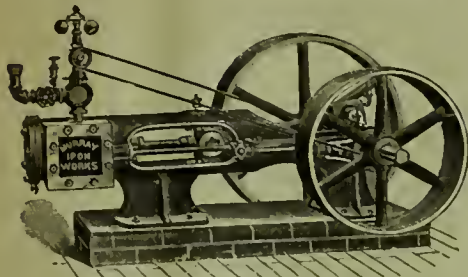
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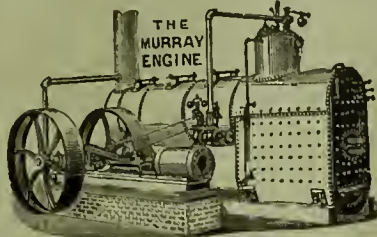
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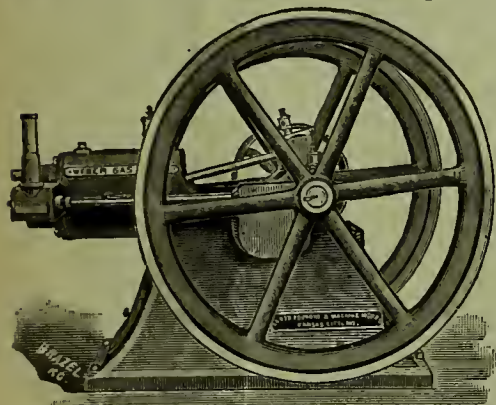
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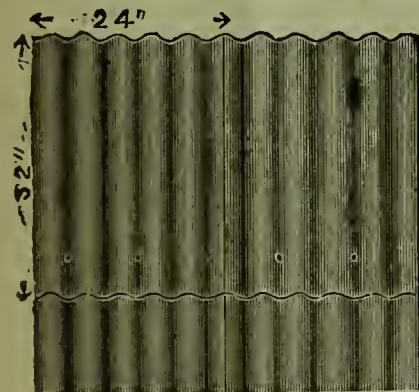
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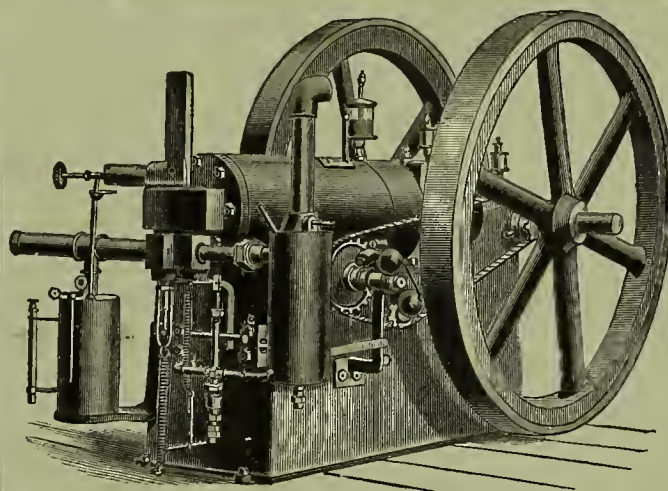
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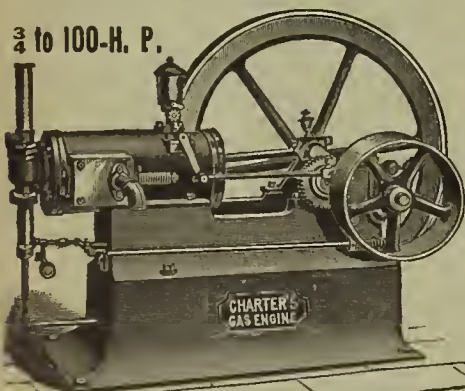
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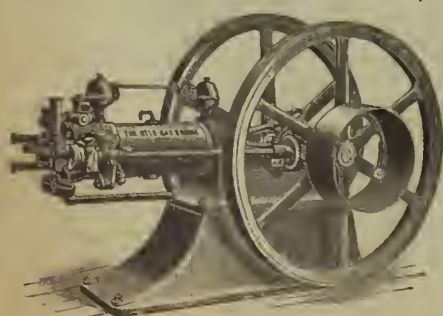
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